The Manufacturing Confectioner

In This Issue

Factors that Effect the Keepability of Marshmallows

Do you know the average relative humidity prevailing at different seasons of the year in each locality of United States so you know what your candy is up against when you ship it to different sections of the country? Dr. Duecker's article in this issue answers this question and has an application to all kinds of confections, but primarily marshmallow.

Controlling the Uniformity of Marshmallow

Mr. Erickson of the Shotwell Mfg. Co. gives an interesting discussion of the factors that effect the uniformity of this super-temperamental confection.

Let's Start the Distribution Survey NOW!

and get well under way with it before the N. C. A. Convention in May. There's a reason.

—Page 28

Confectioners' Educational Advertising Contributor

The PATHFINDER *in the Gelatine Industry*

A Certificate of ANALYSIS *with every delivery*

DELFT

The GELATINE *that* PROVES *its* QUALITY

Perfect Gelatine

"The Triumph of a Principle"

DELFT Gelatine is purer than the United States Food Laws require. BIOLOGICALLY CORRECT—warranted free from all harmful and liquefying bacteria.

Maintain the quality of your products by using DELFT GELATINE.

Harold A. Sinclair

DISTRIBUTORS

ALABAMA
Birmingham—Meyer-Blanke Company, 1608 First Avenue, North

CALIFORNIA
Los Angeles—Jell-Well Dessert Co., 4442 East District Boulevard
San Francisco—Paramount Food Products Corporation, 570 Folsom Street

CANADA
Toronto—Bowes Company, Limited

ILLINOIS
Chicago—Frank Z. Woods (Mgr. Chicago Branch), 180 N. Market St.
—J. W. Allen & Co., 116 N. Peoria Street

MASSACHUSETTS
Boston—Jos. F. Weaver, —Francis A. Crotty, —H. A. Johnson Company } 40 Court Street, 221 State Street

MARYLAND
Baltimore—C. E. Riddle, Emerson Tower

MINNESOTA
St. Paul—O'Brien & Bushnell (Mgrs. St. Paul Branch), 304 Pioneer Building

MISSOURI
St. Louis—Meyer-Blanke Company, 410 Valentine Street

TEXAS
Dallas—Meyer-Blanke Company, 316 N. Preston Street

"Price is a relative term—Quality always a concrete fact"

HAROLD A. SINCLAIR, 160 Broadway, NEW YORK

Entered as Second-Class Matter October 24, 1922, at the Postoffice at Chicago, Illinois, under the Act of March 3, 1879. Published Monthly. Subscription Price $3.00 Annually.

How Each Manufacturer May Cash in on This Mother's Day Advertisement

From N. C. A. Contributor's Bulletin

IT IS doubtful if an advertisement has ever been produced that will make people rush out and buy the article advertised. What really happens is that people make a sort of mental note to act on the suggestion of the advertisement. In the case of this Mother's Day advertisement you can be sure that it will be read by many people who have in the past observed Mother's Day, but with something else than candy. It will be read by many others who haven't in the past observed Mother's Day. Both classes will make a mental note to make a gift of candy, but you know how it is with a mental note. Unless you are reminded again you might overlook the matter. That is why it is so important that retail displays and retail advertising tie in with the advertisement.

Therefore

See to it that in the stores where your candy is sold the following has been done:

First. That a copy of the advertisement is posted in the show window, which serves as a reminder and says in effect, "Here's the place to buy your Mother's Day candy."

Second. That a special Mother's Day display is in the window with an appropriate card bearing phrases like the following, all of which should include the phrase, "Mother's Day, May 8th":

Remember, your Mother likes candy.
Candy—the ideal gift for Mother.
Send your Mother candy.
Remember "her" Mother—send candy.
Remember "his" Mother—send candy.
Remember your children's Mother likes candy.
Candy—the messenger of sentiment.
All Mothers like candy.
Don't deprive Mother of her candy.

Third. That wherever possible the candy department is located in the most prominent part of the store; that it also carries appropriate reminders of Mother's Day.

Fourth. That the candy counter is bright and clean, so your candy will not suffer because of its surroundings.

Fifth. That your candy is price-tagged on a basis that is fair to the consumer.

This job as outlined above will have to be done through your distributing force, that is, through your own salesmen or your jobbers and their salesmen. The more you accomplish along the lines of getting retailer cooperation, the more you will benefit.

The Special Salesmen's Bulletin enclosed herewith outlines clearly a course of action for the salesman calling on the retail trade. See to it that every salesman who calls on the retail trade with your candy has the Salesmen's Bulletin and do everything you can to induce him to follow the plan.

If you sell the jobber, see to it that your own salesmen have a copy of the Special Salesmen's Bulletin, which also outlines *their* course of action with the jobber to get his interest and cooperation. *In the final analysis the man who sells your candy to the retailer is the man you must reach.*

Your Own Advertising

It is bound to pay you tremendously to advertise your own goods at this particular period. Your advertising will then have back of it the force of the national campaign. People will read

THE SATURDAY EVENING POST

CANDY

for Mother's Day

Remember

that mother is always eighteen in some corner of her heart. She likes to remember sweetheart days in which candy played its part. Make her realize that she is still somebody's sweetheart.

Mother's day is an ancient custom. Teach your children to observe it. The love of a mother for her child is the strongest, most unselfish love on Earth, the love of a child for his mother is the noblest.

Give mother candy on Mother's Day, May 8th, as a symbol of your love. Be sure that she is included in the Mother's Day candy custom. Don't disappoint her.

Mother is a judge of candy for experience has taught her that it is made up of corn, milk, sugar, butter, molasses, eggs, gelatine, cane syrup, malted milk, fruits, chocolate and other pure, health-building foods approved by nutrition experts.

Candy nourishes. It gives energy. It relieves fatigue.

Mother deserves candy because she remembers the Mother's Day in the home for Sunday. Remember there are other Sundays the year round but for the pleasure of the Sunday candy custom

the national advertising plus your advertising. The national advertising will influence them to give candy and your advertisement will influence them to give your candy.

Selling Your Employes

The suggestion has been made—a very useful one—that each contributor put a copy of the different advertisements as they appear on the bulletin board in factories and offices where all employes can see them. It will serve as a measure of education and inspiration to the employes of the industry and to further develop their pride of craft. We should not overlook any chance to use these advertisements. We should make them work wherever possible. These advertisements are valuable at sales meetings and conventions. All of us should advertise the advertising.

Consistency?

"The daintiness of Candy—its colorful appeal to the awakening consciousness of springtime—its supreme wholesomeness—the deliciousness of its varied flavors—all combine to make Candy the most appropriate of all Easter gifts."

DO *your* candies measure up to the appetizing promise contained in the stimulating appeal of this month's Co-operative Candy Advertisement? *Are* your flavors *varied* and *delicious?* We can help you make them so.

The old rule of thumb methods in flavoring no longer avail in these days of keen competition. The flavoring of confectionery which was formerly a neglected and undeveloped art has been raised to the status of an exact science. It is not sufficient just to use a *good* flavor since the various conditions of temperature, etc., which are met with in the manufacture of different kinds of candy call for carefully selected flavoring bases which have been particularly designed with an eye to the conditions which must be met and overcome to produce the desired effect in the finished confection.

For over fifty years we have cooperated in the development of the confectionery industry and have endeavored, we believe successfully, to anticipate its growing needs. Flavoring groups have been developed to meet new conditions as these arose and we continue to live up fully to the promise held forth by our slogan—

"A Flavor for Every Purpose"

Here are a few old stand-bys still doing yeoman service:

True Fruit Aroma Essences—

Supply delicious and refreshing fresh fruit quality to fondants and similar confection.

Fritzbro Aromes—

Skillfully fortified; afford a means of imparting true fruit flavor effects at a minimum of cost.

Hard Candy Flavors—

Also based on true fruit but fixed by Nature's own methods to make the flavor carry through the heat into the finished candy. Also excellent for gum and jelly work, chewing gums and in medium grade fondants.

Fritzbro Maple Base—

Purely vegetable in origin. Highly concentrated, true to the delicious flavor of pan-boiled Vermont Syrup.

and Some New Specialties:

Oil of Grape, F. B. Special—

Purely synthetic in composition, hence strong and economical—strictly natural in its delicious fresh grape flavor—especially recommended for gum work, jellies, chewing gum, caramels, etc.

Fritzbro Coffee, Mocha Blend —

Supplies a long felt want for a concentrated strictly natural Coffee flavor. Try this six-fold product in your cream centers.

FRITZSCHE BROTHERS, INC.

"A FLAVOR FOR EVERY PURPOSE"

82 Beekman Street
NEW YORK

118 West Ohio Street
CHICAGO

TORONTO
Fritzsche Brothers of Canada, Ltd.
93 Church Street

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The Manufacturing Confectioner's Approved Advertising of

Confectioners' Machinery and Supplies

and Miscellaneous Advertising Directed to Manufacturing Confectioners

POLICY: THE MANUFACTURING CONFECTIONER *is essentially a manufacturers' publication and therefore is a logical advertising medium only for confectioners' supplies and equipment. The advertising pages of* THE MANUFACTURING CONFECTIONER *are open only for messages regarding reputable products or propositions of which the manufacturers of confectionery and chocolate are logical buyers.*

This policy EXCLUDES advertising directed to the distributors of confectionery, the soda fountain and ice cream trade. The advertisements in THE MANUFACTURING CONFECTIONER *are presented herewith with our recommendation. The machinery equipment and supplies advertised in this magazine, to the best of our knowledge, possess merit worthy of your careful consideration.*

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RASPBERRY

Combining the delicately luscious flavor of the natural *Raspberry* with a strength and tenacity of flavor which the true fruit juice can never attain

UNCO SIMILE RASPBERRY

(Imitation)

is admirably suited for the requirements of the candy maker.

It is available for hard candies as well as soft and to both imparts a character which is distinguished as much by its excellent replication of the true fruit flavor as by its strength and concentration. Even when the batch must be boiled the ultimate flavor effect is not lost.

As is the case with the other flavors in this line, the employment of UNCO SIMILE RASPBERRY insures economy in operation and eminently satisfactory results.

UNGERER & CO.

124 West 19th Street NEW YORK

CHICAGO PHILADELPHIA DETROIT

"isolate"

–CUTS Your COSTS!
–IMPROVES Your PRODUCTS!
–BOOSTS Your SALES!
–INCREASES Your NET PROFITS!

ISOLATE Orange, ISOLATE Lemon or any member of the new ISOLATE family of superfine flavor concentrates is at once the most delicate, most powerful, most economical to use and most profitable to employ of all existing flavor extracts.

Extravagant claims? No! To be specific:—ISOLATE Orange or ISOLATE Lemon impart *nothing but* the true flavor of fresh, sun-ripened fruits—subtle and delicate; yet dominant and clean cut. Each gallon is literally the isolated, unchanged essence of fruit at its best—non-aging and never getting harsh no matter how long it is stored.

In addition to their unapproached fidelity, ISOLATES are both water-soluble and super-concentrated. The super-concentration assures you economy in shipping and storing; and greatest convenience in use. Complete water-solubility assures you perfect diffusion and maximum distribution of flavor throughout your finished goods—with none of the tedious mixing required by oils or emulsions.

ISOLATES have established a new high standard for flavor quality, convenience in use and economy. Trial gallons will demonstrate these advantages to your complete satisfaction.

CONFECTIONERS' EDUCATIONAL ADVERTISING
Contributor

Since giving "Original Terpeneless Citrus Concentrates" to the trade back in 1885 we have perfected a full line of other super-extracts ideally fitted for each flavor use. Our entire capital, personnel and laboratories are devoted to the manufacture of SOLUBLE concentrates. We maintain a modern research department for solving your flavor problems. Consider the Foote & Jenks representative in his true capacity—a Service-man eager and able to assist you.

FOOTE & JENKS

Flavor Specialists

JACKSON, MICHIGAN

THE SPRING HELPER

THE production of Cream Centers in the spring of the year carries with it the usual seasonal difficulties.

A cool day is often followed by a warm or muggy one — overnight changes that make soft centers hard to handle.

Convertit will overcome your seasonal difficulties. It will eliminate scrap — save labor and reduce time — with the positive assurance that your centers will soften after they are coated.

OUR CONVERTIT BOOKLET TELLS THE STORY IN DETAIL. LET US SEND YOU A COPY.

WHAT CONVERTIT IS

CONVERTIT is a yeast enzyme known as invertase. It is a practically colorless liquid. It comes packed in bottles or steel drums. The great value of CONVERTIT lies in its power to soften cream centers after they are coated with chocolate. Our booklet covers in detail the use of CONVERTIT under actual factory conditions.

Invertase has also been the subject of long study and research by the Bureau of Chemistry at Washington, D. C. and it is now fully recognized as a valuable scientific contribution to the candy industry—an outstanding example of the benefits to be derived from the cooperation of chemists and candy makers.

THE NULOMOLINE COMPANY

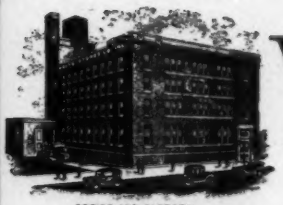
Exclusive Distributors of Convertit

109-111 Wall Street **New York, N. Y.**

CONVERTIT

The highly concentrated invertase of standardized activity

FONDAX



OFFICE AND FACTORY
3615-23 JASPER PLACE
CENTRAL MANUFACTURING DISTRICT
CHICAGO

EASTERN OFFICE AND FACTORY
893 38th STREET BROOKLYN, N.Y.

WHITE-STOKES COMPANY
INCORPORATED
MANUFACTURERS OF
PURE FOOD PRODUCTS

CHICAGO
TELEPHONE LAFAYETTE 7440

MORE PROFIT FROM CANDY PRODUCTS:

Your use of FONDAX is going to pay handsome dividends the longer you use it. To make money in the candy business one must give sweet-toothed buyers what they want in quality. Then provide that quality at a cost low enough to insure satisfactory profits.

FONDAX helps you do this.

You use FONDAX as you would use Fresh, selected eggs. But you don't have to pay fancy prices for eggs. You get equal or better results, and what you save goes to your profit account.

FONDAX is a profit-maker. It lightens weight, but increases the bulk of every candy product you make. It improves the grade and quality of Nougats and Cast Nougatines. It makes better hand roll or Easter Egg centers, Butter Creams, Fudges, Taffies or Bar Goods ---

And when we say "BETTER", we mean exactly that. When we tell you the use of FONDAX will yield an increased bulk output, at a reduced cost, we stand ready to prove it to your entire satisfaction.

Just say the word and we shall be glad to send you a complete collection of FONDAX Formulae that will show you HOW to be sure of these profits.

Cordially yours,

WHITE-STOKES COMPANY, Inc.

ANOTHER *White Stokes* PRODUCT

California Blue Diamond

All of our broker representatives, listed below, are in position to arrange for quick delivery of California Blue Diamond Brand Almonds to you. These broker representatives will consider it a pleasure to serve you.

Albany, N. Y., Arthur F. Wille Co., Inc.
Albuquerque, N. M., The S. P. R. Co.
Amarillo, Texas, Wingrove-Austin Co.
Atlanta, Ga., Lee & Beall Co., Inc.
Augusta, Ga., J. P. Keenan & Co.
Austin, Texas, W. T. Mayne Co.
Baltimore, Md., Delcher & Co.
Birmingham, Ala., Pankey-Loyd Brokerage Co.
Boise, Idaho, Reilly Atkinson & Co.
Boston, Mass., Barclay, Brown & Jones
Bristol, Tenn., John A. Goodwin
Buffalo, N. Y., C. M. Snow & Co.
Butte, Mont., Cooney Brokerage Co.
Charlotte, N. C., J. N. Allen & Co.
Chattanooga, Tenn., Price & Company
Chicago, Ill., Cal. Almond Growers Exchange
Cincinnati, Ohio., Bodemer Davies, Inc.
Clarksburg, W. Va., Blair Willison Co.
Cleveland, Ohio, Housum Kline Co.
Columbia, S. C., Auld & White, Inc.
Columbus, Ohio., Kiser & Hoe Co.
Cumberland, Md., Buley-Patterson Co.
Dallas, Texas, Palmer Bros.
Dayton, Ohio, Loy & Co.
Denver, Colo., Clark-Thurber Brokerage Co.
Des Moines, Iowa, Elwood H. Royer, Inc.
Detroit, Mich., Ed Coe Co.
Duluth, Minn., L. S. Gordon Co.
El Paso, Texas, White Brokerage Co.
Evansville, Ind., F. W. Griese
Fargo, N. D., Geo. R. Freeman & Son
Fort Smith, Ark., Read Brothers
Fort Worth, Texas, Wingrove-Austin Co.
Greensboro, N. C., J. N. Allen & Co.
Greenville, S. C., Chas. M. Britt Co.
Houston, Texas, Perry Harde Co.
Huntington, W. Va., Willison-Sayre Co.
Jackson, Miss., Nance & Patrick
Jacksonville, Fla., Baker & Thames
Kansas City, Mo., Gabel Johnson Jury Co.
Knoxville, Tenn., J. K. Haley Co.
Lincoln, Neb., Cartan & Jeffrey Co.
Little Rock, Ark., Baker-Wille Co.
Los Angeles, Calif., W. F. Beesemyer Co.
Louisville, Ky., Pickrell & Craig
Lynchburg, Va., Daniel W. Sale Co., Inc.
Macon, Ga., Ouzts, Mitchell & Whaley
Memphis, Tenn, Jacob J. Peres & Co.
Miami, Fla., Baker & Thames
Milwaukee, Wis., Otto L. Kuehn Co.
Minneapolis, Minn., Lincoln-McCallum Co.
Mobile, Ala., Watson Brokerage Co.
Montgomery, Ala., S. T. Shank
Nashville, Tenn., Morgan & O'Brien
New Orleans, La., Gough Brokerage Co.
New York, N. Y., H. E. Wood & Co., Inc.
Norfolk, Va., Kramer-Spahn & Moore
Oklahoma City, Okla., Wallace Brokerage Co.
Omaha, Neb., Cartan & Jeffrey Co.
Paducah, Ky., J. E. English & Co.
Pensacola, Fla., Isaacs Brokerage Co.
Peoria, Ill., Seaton & Co.
Philadelphia, Pa., Corby-Cobb Co.
Phoenix, Ariz., Winchester Coe & Co.
Pittsburgh, Pa., Walton-Cooper Co., Inc.
Portland, Ore., Ariss, Campbell & Gault
Pueblo, Colo., L. C. Duncan Selling Co.
Roanoke, Va., W. S. Clement Brokerage Co.
Rochester, N. Y., C. M. Snow & Co.
St. Joseph, Mo., Russell Brokerage Co.
St. Louis, Mo., Ford, Schlesinger & Hillis, Inc.
St. Paul, Minn., Lincoln-McCallum Co., Inc.
Salt Lake City, Utah, Fabian Brokerage Co.
San Antonio, Texas, Linnartz & Frey
Seattle, Wash., Ariss, Campbell & Gault
Shreveport, La., E. P. McKenna Co.
Sioux Falls, S. D., Cartan & Jeffrey Co.
Sioux City, Iowa, Cartan & Jeffrey Co.
South Bend, Ind., Martin Brokerage Co.
Spokane, Wash., Kelley-Clarke Co.
Syracuse, N. Y., Arthur F. Wille Co., Inc.
Tacoma, Wash., Ariss, Campbell & Gault
Tampa, Fla., Hillsboro Brokerage Co.
Toledo, Ohio, Frank H. Lutz Co.
Tyler, Texas, E. P. McKenna Co.
Vancouver, B. C., Ariss, Campbell & Gault
Waco, Texas, Eubank Brokerage Co.
Washington, D. C., E. A. Coleman, Inc.
Wheeling, W. Va., James Cummins & Co.
Wichita, Kan., Ridnour Brokerage Co.
Wilkes-Barre, Pa., Scott & Kelly, Inc.
Wilmington, N. C., J. N. Allen & Co.

California Almond Growers Exchange

311 California Street **SAN FRANCISCO, CALIF.**

BLUE DIAMOND
ALMONDS
BRAND

Brand Shelled Almonds

To facilitate quick and economical deliveries to our many shelled-almond customers we are maintaining stock of the following mentioned varieties and packings of California Blue Diamond Brand Shelled Almonds, at both New York and Chicago:

Variety	*Packed Double Bags 160 Lbs. Net Weight*	*Packed 25 Lbs. Net Weight Boxes*	*Packed 5-lb. Cartons (Ten Cartons Per Case)*
Nonpareil Medium	45½c	47½c	48½c
IXL Medium	45½c	47½c	.....
Ne Plus Medium	45c	47c	.....
Nonpareil Sheller Run	44½c	46½c	.....
IXL Sheller Run	40c	42c	.....
Ne Plus Sheller Run.....	40c	42c	.....

Above prices are per pound, net weight, either F. O. B. New York or F. O. B. Chicago

Whole Blanched Nonpareil or IXL in Boxes or Bbls. 64½c F.O.B. N. Y. or Chicago

Considering present prices on imported shelled almonds, it will be observed that the above-mentioned prices on **California Blue Diamond Brand Shelled Almonds** are very reasonable.

"Medium" gradings are composed entirely of well-graded whole kernels.

"Sheller Run" gradings are guaranteed not to contain in excess of 25 per cent broken kernels.

Before being shipped, all of our Blue Diamond Brand Shelled Almonds are completely sterilized against the development of moth and worm through employment of the Vacufume System, using carbon bisulphide gas.

Upon request, we shall be glad to furnish type samples of any of the above-mentioned varieties of Blue Diamond Brand Shelled Almonds.

We sell only to jobbers and to wholesale manufacturing confectioners. We do not sell retailers.

California Almond Growers Exchange

311 California Street **SAN FRANCISCO, CALIF.**

Candy Profits—

Perhaps Our Research and Service Department can tell you how to increase them with Gelatine

Our Research and Service Department, headed by one of the leading candy experts of the country, has worked out many new and valuable uses of gelatine, of interest to the candy manufacturer.

Let them show you how you can increase your candy profits through a broader understanding of the uses of gelatine. Find out how you can make better candy—better in appearance, flavor, texture—at reduced production costs.

Remember, gelatine has real food value to add to your candy batch. For the solution of any special candy-making problem you may have—for recipes or general information, address our Research and Service Department. There is no charge whatever for the service they render.

Choose this "Grade Plus" Gelatine

In selecting the gelatine for use in your candies—consider the "grade plus" feature of Atlantic *Super-Clarified* Gelatine—greater purity, clarity, uniformity and viscosity for the money you spend.

ATLANTIC GELATINE COMPANY
WOBURN, MASSACHUSETTS

Chicago: Suite 510, 118 N. La Salle Street
New York: Room 92, 1 Hudson Street

ATLANTIC *Super-Clarified* GELATINE

In a Swiss village Daniel Peter *made the first milk chocolate* ' '

No other milk chocolate blend has ever equalled Peter's for richness of chocolate flavor

Now in America the famous Peter Milk Coatings—blended by Swiss methods—fill your coating requirements

OVER fifty years ago in a little Alpine village Daniel Peter made the first milk chocolate. After tireless experiments he perfected the famous method of blending fresh milk with chocolate with all its rich distinctive flavor. In inventing milk chocolate Peter laid the foundation of a world-wide industry.

In America to-day—the great Peter organization blends milk with chocolate just the way Daniel Peter used to blend it. And Peter's Milk Chocolate Coatings are one of the outstanding accomplishments of this famous chocolate house.

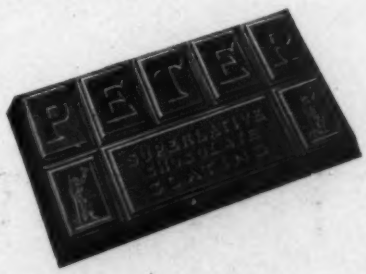
The plant where Peter's Milk Coatings are made is situated in a famous dairy region. Here fresh full cream milk from nearby farms is blended hourly into these richly-flavored milk coatings, so as to preserve the delicious freshness of the milk.

Rich in flavor—Peter's Milk Coatings will fill your requirements. Used for fine boxed assortments they impart all the rare distinction of the Peter flavor.

You will find it profitable and economical to use Peter's Milk Coatings.

Peter Cailler Kohler Swiss Chocolates Co., Inc., 131 Hudson St., New York City. Branch Sales Offices: 722 Nicholas Bldg., Toledo, Ohio; 431 South Dearborn St., Chicago, Ill.; and 3620 Third Ave. So., Minneapolis, Minn.

The Peter Coating line covers every chocolate making need. In addition to Milks, it includes Vanillas, Sweets, Bitter Sweets and Liquors.



Packed in 100 and 300 pound cases, each cake is stamped with the famous Peter trade mark

"High as the Alps in Quality"

PETER'S CHOCOLATE COATINGS

Marshmallow Troubles
What Are Yours

Heavy Crusts?
Going Stale?
Too Chewy?
Poor Color?
Graining Out?
Falling?
No Life?
Drying Out?

All of these troubles are being successfully worked out every day at Mellon Institute of Industrial Research

A Service Rendered to Gelatine Users

Write to

DR. W. W. DUECKER

Essex Research Fellow

Mellon Institute Pittsburgh, Pa.

Essex Gelatine is making Prime Marshmallows without added cost. Order ⅛ bbl.—32 pounds, for practical usage, that proves its value

Remember *Is Standard*

ESTABLISHED 1903

ESSEX GELATINE COMPANY

Manufacturers

40 NO. MARKET STREET, BOSTON, MASS.

NEW YORK 54 Washington St.	CHICAGO 323 W. Polk St.	ST. LOUIS 400 So. Broadway	PHILADELPHIA 708 South Delaware Ave.	GRAND RAPIDS, MICH. 435 Ionia Ave., S. W.	ATLANTA 169 Hayes St.
SAN FRANCISCO Second and Brannan Streets	LOS ANGELES 412 W. Sixth St.	SEATTLE 1018-4th Ave., So.	PORTLAND, ORE. 403 Hoyt Street	DALLAS, TEXAS 301 No. Market St.	

NULOMOLINE
THE HONEY OF SUGAR

Tough, dry or grainy Marshmallow cannot bring you repeat sales.

Nulomoline will give your Marshmallow four of the most essential qualities — *lightness, softness, sweetness* and *tenderness.*

These qualities are your best salesmen — let them work for you.

The attractive tenderness of freshly made Marshmallow can be retained by the use of Nulomoline. Keeping quality is the important feature of all Marshmallow.

Our candy makers and chemists have studied the manufacture of Marshmallow and know the problems of the factory man. We will be glad to cooperate with you to obtain the best results from the use of Nulomoline in Marshmallow.

CONFECTIONERS' EDUCATIONAL ADVERTISING
Contributor

The NULOMOLINE Co.

109-111 Wall Street — New York, N. Y.

Staley's

for MARSHMALLOW WORK

STARCH constitutes a most vital factor in the manufacture of a really delectable Marshmallow. Much of the trouble encountered in the making of marshmallows is traceable to the condition of the starch. *A Starch to act efficiently must possess those properties that will lend itself to the proper conditioning.*

The following three popular brands are recognized for their adaptness to the exacting requirements of high quality marshmallow makers.

1. Staley's Special Moulding Starch

—has a specific low moisture content
—is dry, clean and porous
—will absorb moisture from the freshly cut marshmallow—later yielding the moisture to the air in the drying room
—holds perfect impressions of the moulds

2. Staley's Confectioners' Moulding Starch

—Uniformly low in moisture content
—Ideal for blending purposes
—Efficient Moisture Absorbent

3. Staley's Confectioners' Dusting Starch

—Noted for its purity and whiteness
—Dry and fine in texture
—Suited for dusting any confection

A. E. Staley Manufacturing Company
Decatur **Illinois**

Starch

Every candy line in which

GOLDEN TOASTED COCONUT

"The Economy Nutmeat"

is used, is a big success—a profitable "repeater" because everybody likes the fresh nutty flavor of Baker's Coconut—every bite suggests another.

There's a fascination about its rich, golden tasty appearance that candy folks can't resist—there's quality supreme in every shred.

SEND FOR SAMPLES

We will gladly send experimental samples. You'll find them chock full ideas for new, quick sellers. Tell us you want them, no obligation whatever.

Franklin Baker Company

Hoboken, New Jersey

Canadian Address
Franklin Baker Ltd., 20 Bates Road, Outremont, Montreal

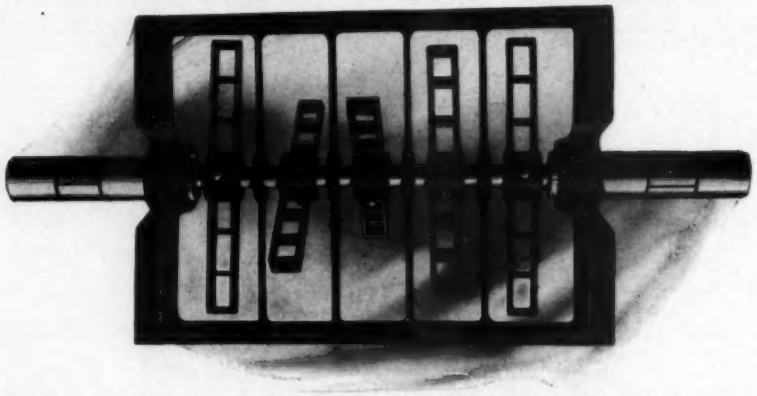
It is not fair to the future of your organization to use "bargain" lots of **Toasted Coconut**, or attempt the preparation of **"Toasted"** in your own plant from Imported Coconut.

Golden Toasted Coconut is a specialty topping prepared by the makers of Gem Imported Coconut.

It's in the Beater —The Heart of your Marshmallow department

WERNER HEAVY DUTY DOUBLE-ACTION BEATER

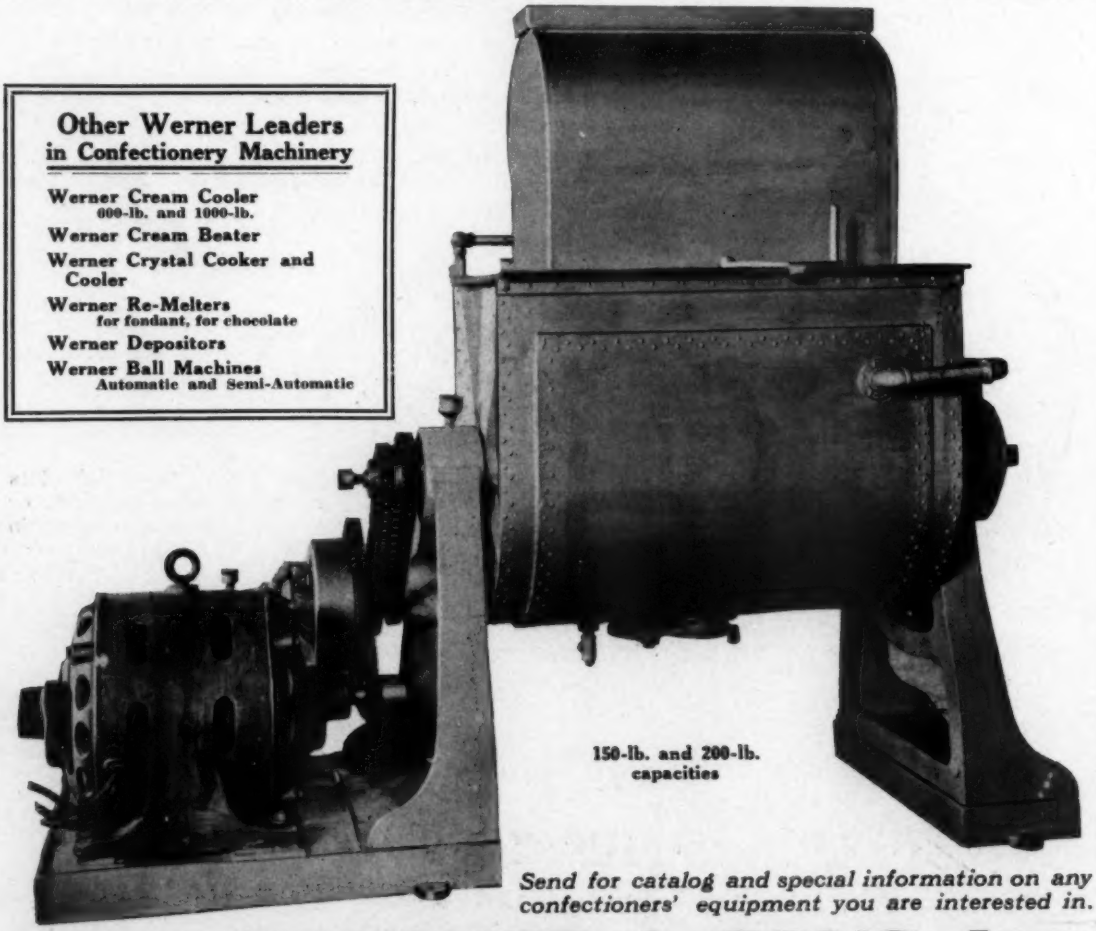
for volume production of quality Marshmallow



Note the design of beater rake and paddles—no pockets in this beater where part of batch is not thoroughly beaten, which means greater volume and uniformity of marshmallow.

Other Werner Leaders in Confectionery Machinery

- **Werner Cream Cooler** 600-lb. and 1000-lb.
- **Werner Cream Beater**
- **Werner Crystal Cooker and Cooler**
- **Werner Re-Melters** for fondant, for chocolate
- **Werner Depositors**
- **Werner Ball Machines** Automatic and Semi-Automatic



150-lb. and 200-lb. capacities

Send for catalog and special information on any confectioners' equipment you are interested in.

JOHN WERNER & SONS, Inc.

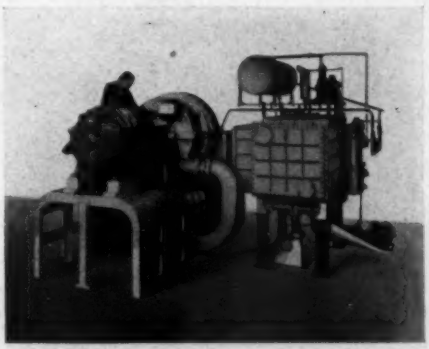
Rochester, N. Y.

NEW YORK CITY: Arthur F. Miller, Alamac Hotel, 72nd and Broadway

Manufactured Weather in the Candy Factory means *Weather Independence*

TWENTY - FIVE years ago a young engineer by the name of Carrier began delving into the problems of atmospheric conditions within buildings. The result of his work was to record definitely the natural laws governing the humidity of the atmosphere and its effect upon materials. His further contribution was to devise and develop mechanical equipment capable of creating and controlling any desired conditions of temperature, humidity and air movement. Today thousands of factories in more than 200 different industries are conducting operations in absolute independence of the outdoor weather or the season.

Among these are the greatest candy factories of the world. **Weather independence;** that means much to the confectioner. Consider a plant so equipped that clean, pure air is constantly supplied to each department at the temperature and humidity exactly suited to each process. Such plants have no change of formulas with the season, there is uniform rate of production of perfect products, seasonal and part time employment are discarded, a uniform number of well-trained employees is retained.



Carrier Centrifugal Refrigeration

Then there is Carrier equipment employing the same principles of accurate automatic control for the efficient and uniform drying of starch, marshmallows, gum drops and the like.

The most recent contribution which Carrier has made to the science of air conditioning has been the invention and development of Centrifugal Refrigeration. This machine operates with the Carrier System of air conditioning to produce cooling and dehumidification during the warm, muggy season. The space occupied is less than one-fourth that of any other system. Operation is like a centrifugal pump by direct connection to a motor. The refrigerant is a stable inoffensive liquid "Dieline." There is no possible hazard in the operation of this highly efficient new machine. Centrifugal Refrigeration is in operation in these plants: S. F. Whitman & Sons, W. F. Schrafft & Sons, The Nunnally Co., The New England Confectionery Co., and now a capacity of over 600 tons is being installed in Schrafft's new plant at Boston. All are operating in conjunction with Carrier Systems to make, "Every day a **good** day" for the confectioner.

The finest candy factories in the world are Carrier conditioned

Write the details of your problem.
Ask for a visit from one of our engineers.

Carrier Engineering Corporation

Office and Laboratories (Assoc. Member Nat. Conf. Ass'n)

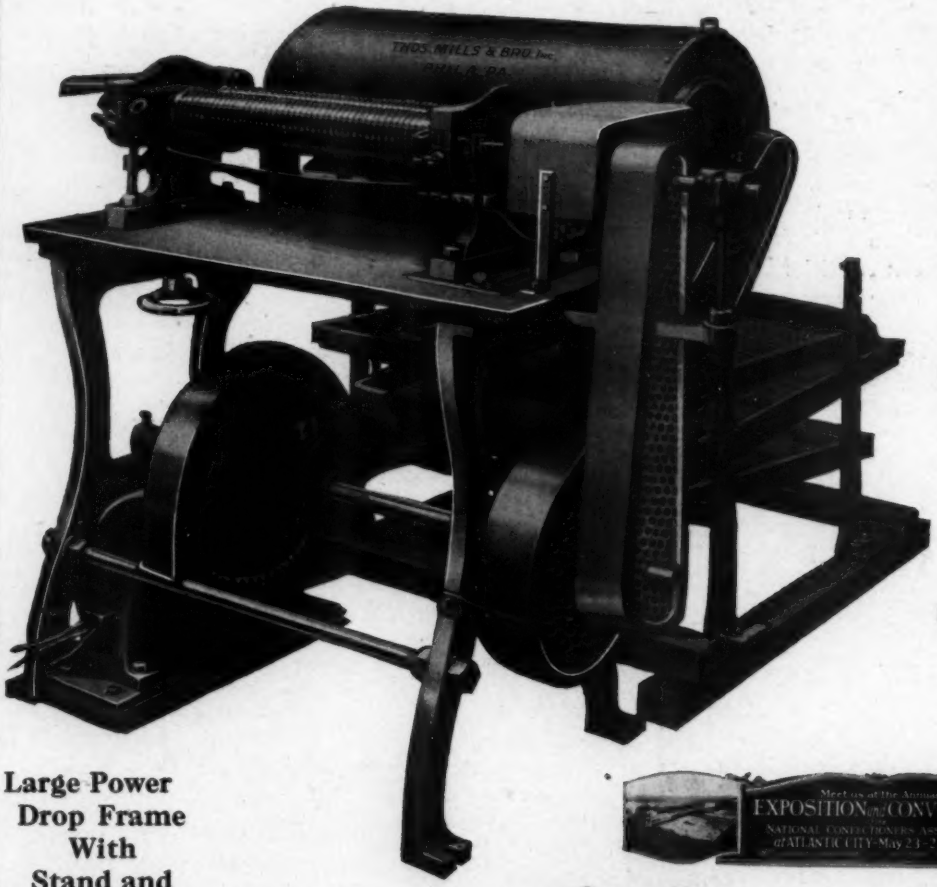
NEWARK, NEW JERSEY

NEW YORK - PHILADELPHIA - BOSTON - CHICAGO - CLEVELAND - KANSAS CITY - LOS ANGELES

Thomas Mills & Bro., Inc.

1301 to 1315 North Eighth St. **Philadelphia, Pa.**

ESTABLISHED 1864



Patent Automatic Seamless Hard Candy Machine

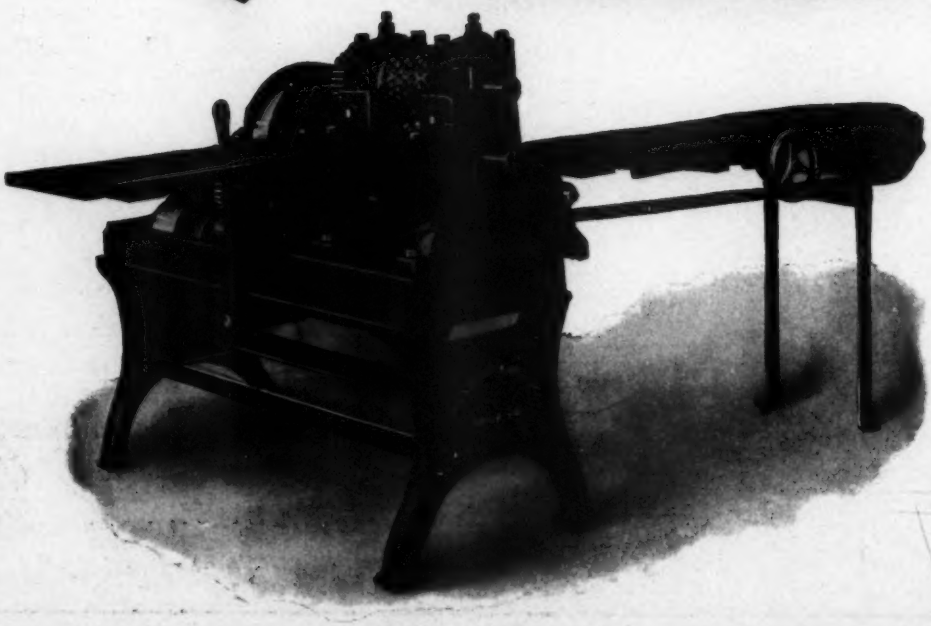
Improve Your Production By Installing This Labor Saving Machine

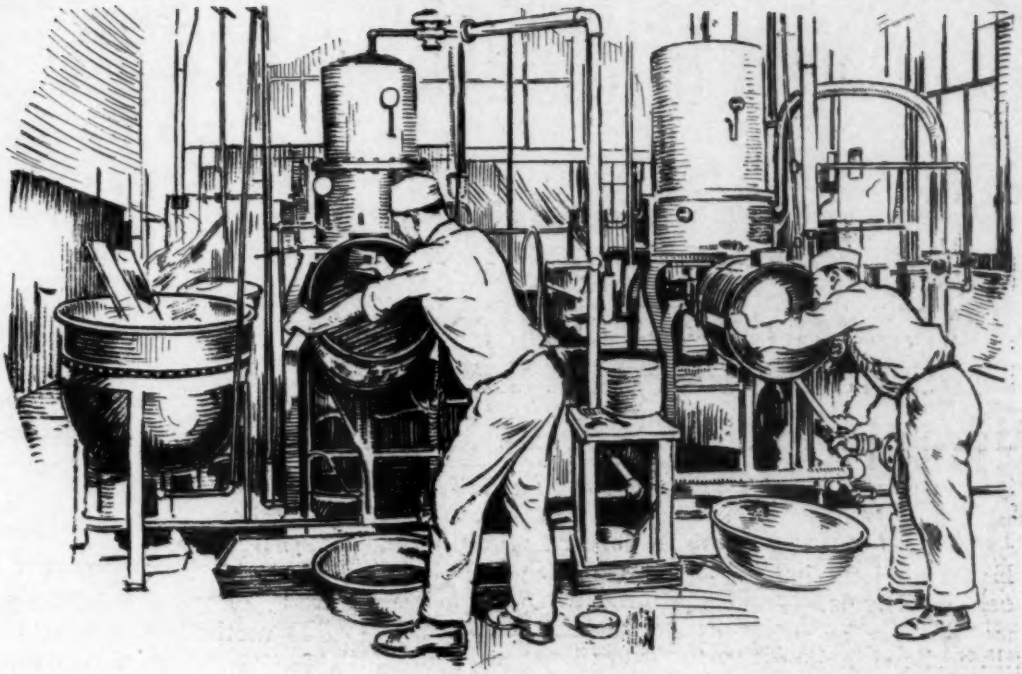
Send for Special Circular

Large Power Drop Frame With Stand and Endless Belt Conveyor Attachments

Used In All The Largest Factories For High Grade Hard Candies

Our Catalog of Confectioners Equipment Sent on Request





Your goods sell on *flavor!*

OAKITE Service Men, cleaning specialists, are located at

Albany	Louisville, Ky.
Allentown, Pa.	*Milwaukee
Altoona, Pa.	*Minneapolis
*Atlanta, Ga.	*Montreal
Baltimore	*Memphis, Tenn.
*Birmingham, Ala.	Newark
*Boston	Newburgh, N. Y.
Bridgeport	New Haven
*Brooklyn	*New York
Buffalo	*Oakland, Cal.
Camden	*Omaha, Neb.
Charlotte, N. C.	*Philadelphia
*Chicago	*Pittsburgh
*Cincinnati	Portland, Me.
*Cleveland	*Portland, Ore.
*Columbus, O.	Providence
*Dallas	Reading
*Davenport	*Rochester
*Dayton	Rockford
*Denver	Rock Island
*Des Moines	*San Francisco
*Detroit	*Seattle
Erie, Pa.	*St. Louis
Flint, Mich.	Springfield, Ill.
Fresno, Cal.	Syracuse
*Grand Rapids	South Bend, Ind
Harrisburg	*Toledo
Hartford	*Toronto
*Indianapolis	*Tulsa, Okla.
*Jacksonville, Fla.	Utica
*Kansas City	Vancouver, B. C.
Little Rock, Ark.	Williamsport, Pa.
*Los Angeles	Worcester

*Stocks of Oakite Materials are carried in these cities.

NO need to tell you, or other confectioners, about the importance of keeping the distinctive taste and flavor of your product uniform and pleasing. For you know that continued sales are based on this one thing—FLAVOR.

Here is where Oakite cleaning materials can help you. And prove a distinct aid in maintaining the high standard of your goods by removing from kettles, molds, cooling slabs, trays, pans, and similar equipment every last trace of dirt, grease, left-over syrup, chocolate or filler. Cleaning with Oakite leaves nothing which can contaminate candy, or make it "off-flavor."

OAKITE cleans at lower cost—in less time, with less labor—than is possible with any other material. Take advantage of our 18 years' experience and let us prescribe better cleaning methods for you, as we have for thousands of others.

Write us today. No obligation.

OAKITE IS MANUFACTURED ONLY BY

OAKITE PRODUCTS, INC., 26c Thames St., NEW YORK

(Formerly OAKLEY CHEMICAL CO.)

OAKITE

TRADE MARK REG. U.S. PAT. OFF.

Industrial Cleaning Materials and Methods

HAND FRIEND ROLL

PLASTIC CENTER MACHINE

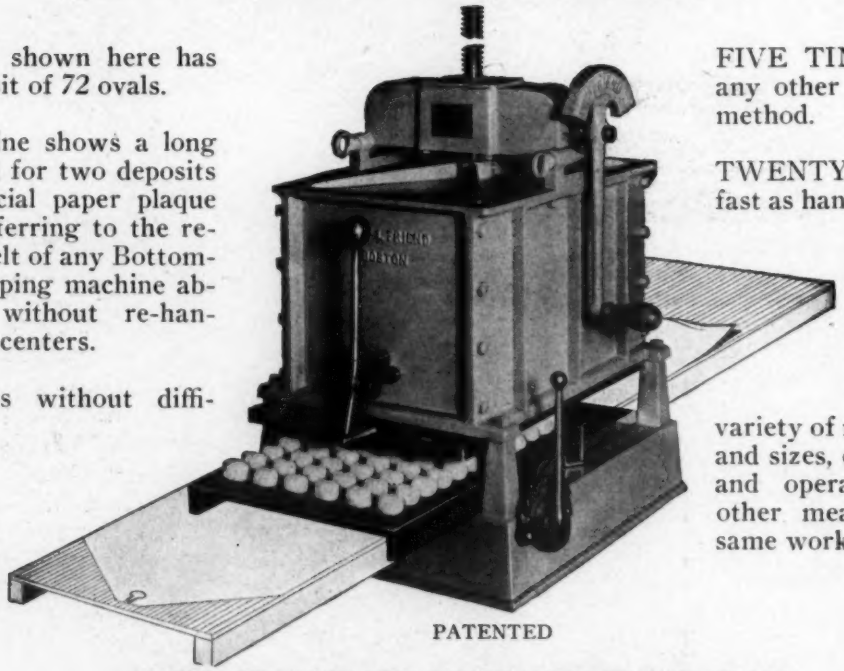
"The World's Greatest Producer of Hand-Roll Centers"

CREAM CENTERS Make Up the Great Bulk of Confections
HAND-ROLLS Represent the Highest Quality Creams
FRIEND PLASTIC CENTER MACHINES MAKE THE FINEST HAND-ROLLS

Model E shown here has one deposit of 72 ovals.

The outline shows a long tray used for two deposits on a special paper plaque for transferring to the receiving belt of any Bottomer or Dipping machine absolutely without re-handling the centers.

Cuts nuts without difficulty.



PATENTED

FIVE TIMES as fast as any other mechanical method.

TWENTY-FIVE times as fast as hand-rolling.

No other means can produce such perfectly formed centers, nor approach it for variety of materials, shapes and sizes, or for low initial and operating cost. No other means can do the same work at any cost.

SAVES ITS COST TEN TIMES OVER IN ONE YEAR!

DON'T ROLL THE HAND-ROLLS

ROLLING, BY ANY MEANS, breaks down a delicate fondant and involves the use of some drying powder which lowers the quality, impairs the flavor, and is often the cause of GRAIN AND FERMENTATION, imperfect dipping and leaky goods.

Model E—96 centers at one time—(75 lbs. in 15 minutes)
" F—48 " " " " —(35 " " 15 ")

Special machines for larger production built on special order.

HARRY L. FRIEND

152 Milk Street

BOSTON, MASSACHUSETTS, U. S. A.

Demonstration N. C. A. Convention—Atlantic City—Booths 135 and 136

Catching the Flying Nickel!

THE old-time lemon drops, reposing in a glass jar on a dealer's shelf, certainly led a slow and uneventful existence, compared to the lively packaged fruit drops of today.

These modern candies, in their sparkling foil wrappers and cheery colored bands, are *so* inviting, and always within easy reach . . . you simply obey the impulse, pick up a package, and put down a nickel.

It's only a five-cent sale, but how often it occurs! It happens often enough to keep scores of our wrapping machines busy, *each* machine turning out fruit drops at the rate of a package every 1.7 seconds.

This is just another example of the merchandising possibilities opened up by modern packaging methods. Beechnut Fruit Drops, Life Saver Fruit Drops, Lance Cough Drops, Mars Chocolate Bits, Beechnut Mints, Pascall Mints (England) these highly successful products are all being wrapped on our tablet-wrapping machine.

It has been demonstrated over and over again that the right type of machine-made package can lift a product out of the slow-moving, unprofitable class, and put it up with the large-volume leaders. Perhaps you feel that *your* product is "so different" that it cannot be wrapped by machine. Maybe you're right. Maybe you're wrong. Anyway, bring your problem to us. Solving problems built our business.

PACKAGE MACHINERY COMPANY

SPRINGFIELD, MASSACHUSETTS

NEW YORK: 30 Church St. **CHICAGO: 111 W. Washington Street**

Let our nearest office be of service to you

Take it from a Candy Man:

"Standardizing of manufacturing conditions necessary for uniformity of confectionery can be obtained and maintained much more easily if conditioned air is available than if the factory has not this blessing at its disposal."

—Quoted from one of the foremost marshmallow and bar-goods manufacturers in U. S. A.

Dr. Duecker says: (writing on Marshmallow research)

"Weather is the principal factor which determines the 'shelf life' of marshmallow, and the influence of weather is determined entirely by the temperature and the moisture content of the air." (The Bentz Chillblast controls both).

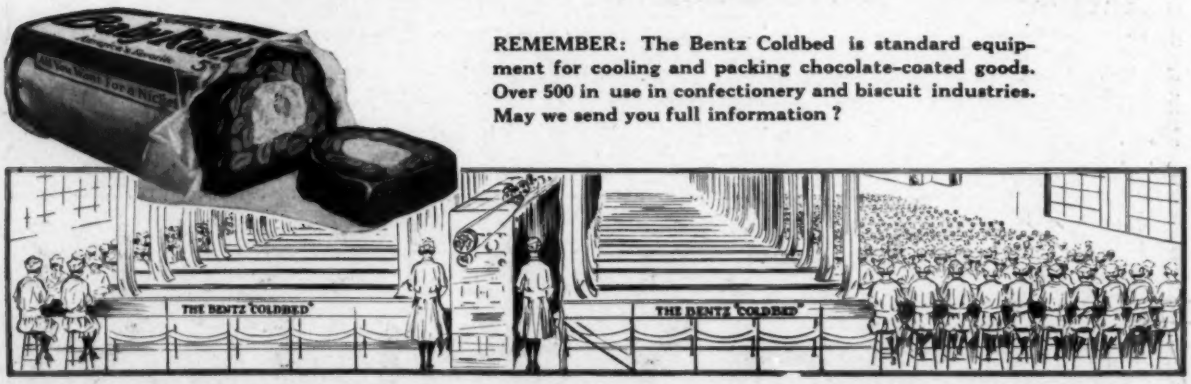
We Bring the Climate to Your Factory

by producing ideal atmospheric conditions for Chocolate, Hard Candy, Starch and Storage departments which can be kept constant and uniform regardless of the outside weather.

Our Expert Engineering Service is at your disposal.
May we submit an estimate?

BENTZ ENGINEERING CORP'N
661 Frelinghuysen Ave., Newark, N. J.

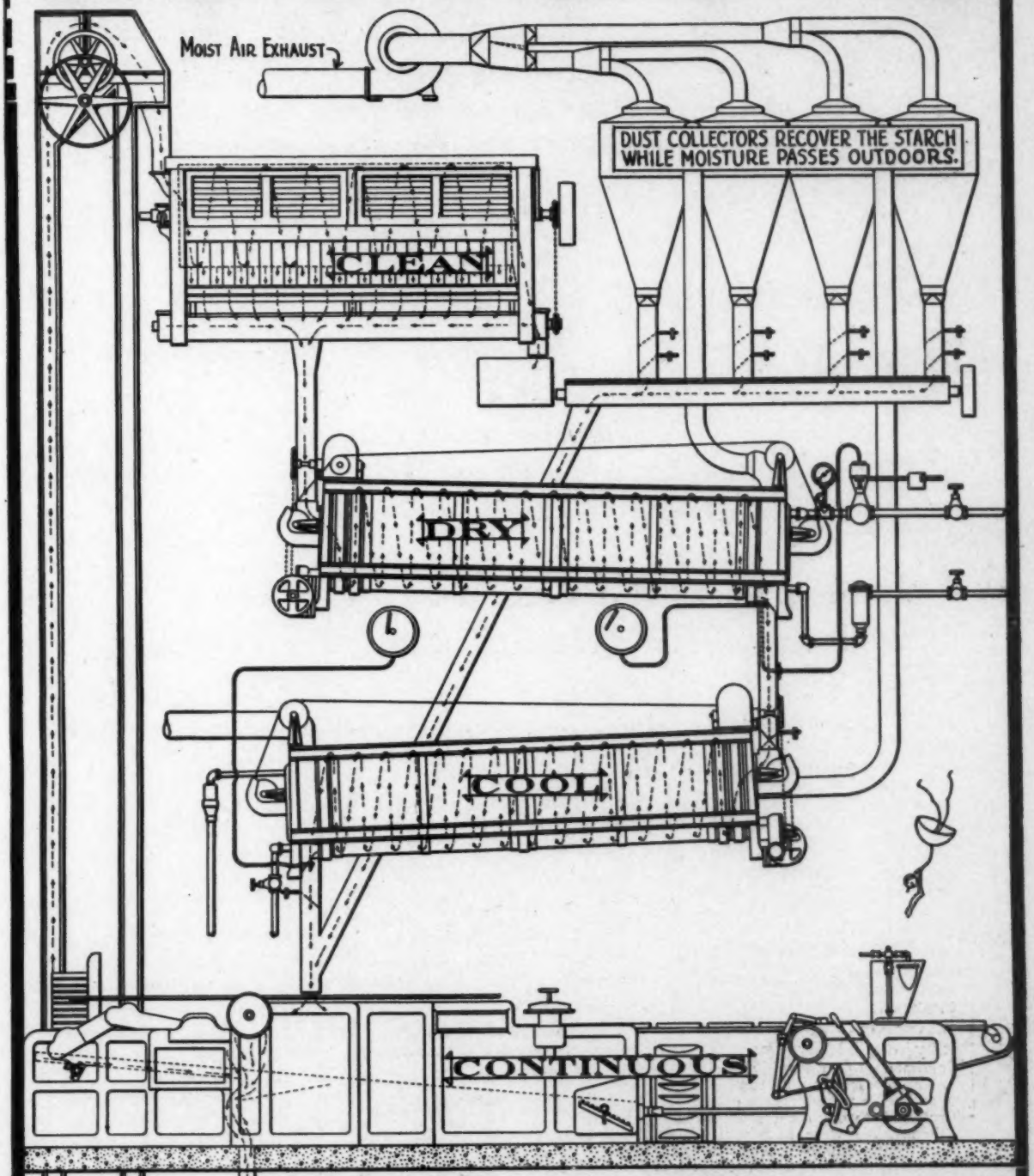
New York: 122 Greenwich St. **123 West Madison St., Chicago**



REMEMBER: The Bentz Coldbed is standard equipment for cooling and packing chocolate-coated goods. Over 500 in use in confectionery and biscuit industries. May we send you full information ?

Curtiss Candy Co. use 22 "Coldbeds" for cooling centers and another 22 "Coldbeds" for cooling or setting the chocolate ready for the packers—a continuous process.

HUHN



STARCH SYSTEM

A. HUHN MFG. CO. —— MINNEAPOLIS, MINN.

First Producers of Certified Colors

ATLAS CERTIFIED COLORS — scientifically prepared to meet the needs of the highest type of confectioners and for every purpose in the confectionery industry — particularly for plastic and clear hard candy work.

Uniformity

Strength

Purity

Solubility

Food Color Headquarters for Fifty Years

FIFTY YEARS AGO WE PRODUCED THE FIRST HARMLESS FOOD COLORS used in the United States (after long study by experts of their physiological effects—the first and only work of this kind ever undertaken on coal-tar colors), and after establishing their harmlessness for food, every batch was tested before being distributed. This was 30 years before certified colors came into use, of which we were the FIRST PRODUCERS. We have never yet failed to prove any official wrong who claimed to find objectionable colors in our customer's goods. No manufacturer ever suffered through the use of them. We were largely instrumental in halting opposition of important officials when the present Food and Drug Act was before Congress, who would have forbidden all food coloring if they could.

COLORS FOR PLASTIC WORK

Atlas Cert. New Rose
" " Marseline Orange
" " C. D. M. Green
" " Mauvine
" " 514 Brown

and many others, which will produce those beautiful and delicate shades of nature.

CONFIDENCE

The Progressive Manufacturer can only establish a quality product by using the best material; there are no ingredients in which confidence in the producer is so absolutely necessary or important as in Colors and Flavors. **Our 75 years of business experience is a guarantee of quality products, and a sound basis for your confidence.**

GENUINE FRUIT EXTRACTS

Our Genuine Fruit Extracts are not only so-called, but the **product of the actual fruit whose name they bear.**

The production processes are by special apparatus and methods which retain and preserve all the finest and most delicate esters and aromas of the **finest selected fully ripe fruit picked where the most lucious of its kind is grown.**

We shall be glad to have an order for pint samples and suggest our **wonderful Genuine Fruit Strawberry and Raspberry Extracts.**

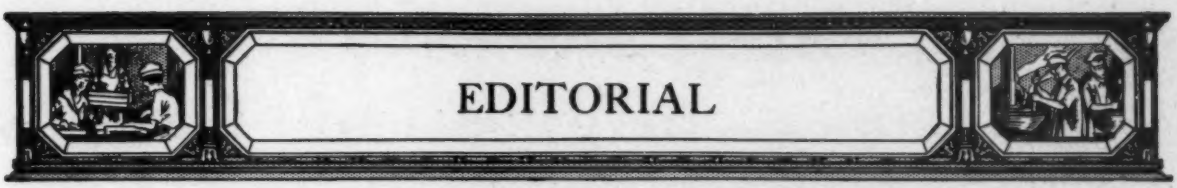
H. KOHNSTAMM & CO., Inc.

Established 1851

11-13 East Illinois Street
CHICAGO

Factory:
537-555 Columbia St., Brooklyn, N. Y.

83-93 Park Place
NEW YORK, N. Y.



EDITORIAL

EARL R. ALLURED, Publisher

Subscription Price, $3.00 the year. Single Issues 50c.

A Specialized Technical and Commercial Magazine for Confectionery Superintendents, Purchasing Agents and Executives.

Published Monthly on the 18th by

The MANUFACTURING CONFECTIONER PUBLISHING CO.

30 North La Salle St., Stock Exchange Bldg.

CHICAGO

New York Office, 39 Cortlandt Street, R. W. Younie, Mgr. Phone: Rector 2657

English Representative: L. M. Weybridge, Members Mansions, 38 Victoria St, London S. W. 1, England

The Silver Lining

EVERY so often there comes a pause in our industrial activities as though Dame Progress had deliberately stopped in her tracks for a moment to take stock of her retinue and to weed out from the ranks the lame, the halt and the blind. Then she resumes her onward march, her pace quickened by the chastened army keeping in time.

We have entered upon a period of readjustment in the candy industry. There are signs of it all around us. The failures, the shifting of lines, the changing of policies and the consummation of mergers reflect a condition which we cannot and must not ignore.

We are commencing to pay the penalty for our crime of overproduction. We have come to see the spectacle of one chocolate manufacturer gloating over the high cost of cocoa because he knows that it will ruin his neighborhood and to that extent lessen the competition to which he is subjected.

What is the answer? Is it consolidation? Is it chain store merchandising? Or must we look to economies in production and scientific purchasing?

Several things are certain. High wages for American labor will continue under the influence of restricted immigration. The present era of high prices will in all probability continue. Machinery has reached a high state of perfection in practically all lines, and while we will undoubtedly see a number of refinements here and there, the country's foremost engineering authorities predict few revolutionary changes in machinery during the next twenty-five years. Where, then, is the solution?

The good old consuming demand has not forsaken us. Reports show that the per capita consumption of candy is constantly increasing. It is merely the *balance sheet* that is all wrong.

The key to the successful management of the candy industry lies today in effecting lowered costs through legitimate and intelligent substitutions of materials. It lies in plant economies through competent engineering. It lies in the economies of combined or centralized purchasing. This is the one field of activity, which in the majority of our manufacturing establishments has not yet yielded to the magic wand of scientific management.

Combined purchasing is the primary object of all major consolidations. It is the Alpha and Omega of direct-to-consumer merchandising. Ask Woolworth, the United Cigar or the A. & P. They know.

Contributors, Show Your Colors at Atlantic City

At a meeting of the Advertising and Educational Committee of the National Confectioners' Association held in St. Louis, Friday, March 25th, it was decided to have an educational exhibit at the convention of the National Confectioners' Association at Atlantic City, May 24th to 28th. Reproductions of the series of the thirteen advertisements scheduled to run during the next few months will be attractively displayed. Panels visualizing the Advertising and Educational Work will be shown and the entire program of the industry demonstrated.

A section of the exhibit will be shown at the Convention of the Associated Retail Confectioners in the Ben Franklin Hotel, Philadelphia, May 23rd and 24th. Harry R. Wilson, director, will be in charge of the exhibits.

Contributors to the Advertising and Educational Campaign Fund exhibiting at the Atlantic City exhibit on the Steel Pier, are to be supplied with a large shield for display in their booths. The shield supplied will be an enlarged reproduction of the contributors' emblem in attractive colors.

Each contributor will also be supplied with an attractive celluloid button to be worn during the convention to give publicity to the Advertising and Educational Campaign. Each contributor will be entitled to a button for each accredited representative attending the convention. Shields and buttons can be obtained from C. S. Clark, Financial Campaign Director, who will be located in the exhibit booth on the Steel Pier.

Let's Start It Now!

The National Survey of Confectionery Distribution

ON THE representations of spokesmen for the trade who appeared before its committees on appropriations to describe the urgent need for basic facts concerning the distributive channels, practices, and preferences now in vogue, the 69th Congress included in the appropriations for the U. S. Department of Commerce an item of $10,000 to cover the expenses of a national, fact finding survey. These funds will become available on July 1, 1927.

To the Foodstuffs Division of the Department of Commerce was delegated the responsibility for the survey, with R. L. Purdon, Chief of the Confectionery Section, in direct charge of the work.

The Executive Committee of the National Confectioners' Association, after conferences with Mr. Purdon and other Government experts, have agreed that the scope of the survey, considering the elements of time, available funds, relative ease with which manufacturers can answer questions from existing records, and other factors, should be as shown by the following questions:

1. **Total candy sales of each of the following classes or kinds of candy:**

	1926		1925	
	Pounds.	Mfrs. Sales Value.	Pounds.	Mfrs. Sales Value.
(a) **Penny goods**.....	.....	$.....	.....	$.....
(b) **Bulk candies** (sold in barrels, pails, boxes, tins, etc.).....	.....	$.....	.....	$.....
(c) **Bar goods**—Chocolate and chocolate covered	.....	$.....	.....	$.....
Other types of bar..	.....	$.....	.....	$.....
(d) **Packages, 5c and 10c,** other than bar goods	.....	$.....	.....	$ .....
(e) **Packages**—Plain and fancy	.....	$.....	.....	$.....

2. **Total candy sales to chain and syndicate stores and large department stores.**
3. **Total candy sales direct to independent retailers** (other than chain and syndicate stores and large department stores).
4. **Total candy sales to each of the following classes of jobbers:**
   Wholesale Confectioners (including candy manufacturers who also purchase candy from other manufacturers and sell it to the wholesale or retail trade).
   Wholesale Grocers.
   Whole Druggists.
   Tobacco Jobbers.
   Other types of jobbers other than above (wagon men, etc.).
5. **Total candy sales through your OWN STORES direct to consumers.**
6. **Total sales in dollars for the years 1926 and 1925** in each of the following States and cities.
   (List 48 States and 26 leading cities.)
7. **Exports and different countries to which exported.**

A tentative questionnaire based on this outline has been prepared and first will be tested as to its "workability" in producing the desired information without undue burden on the manufacturer, by mailing a few copies to selected candy firms. The questions will then, if found necessary, be revised in the light of these actual experiences, and the revised questionnaire printed and mailed out to every manufacturer in the country.

In order that the survey may be completed within the expense limits set by the appropriation, it is vital that accurate re-

ports be returned by each manufacturer. Where, for any reason, this is not done, it will become necessary to have an agent call on the manufacturer. It is necessary, however, that such travel be confined to the minimum.

It has been hoped that some arrangement could be made by officials of the Department of Commerce to divert part of unused balances of 1926-27 appropriations so as to permit of the beginning of this work prior to July 1, 1927, when the regular appropriation becomes available. It develops, however, that this is not possible and, so far as Government funds are concerned, the project must be laid aside until July 1, 1927.

The importance of avoiding such delay, if possible, can hardly be over-emphasized. It would tremendously stimulate the success of the survey, for instance, if the final questionnaires could be mailed to manufacturers prior to the convention at Atlantic City, May 24-27, inclusive, so that they could secure additional first hand information and help in filling out reports from Mr. Purdon and his assistants who will attend the convention. An early beginning would also serve to make the final results of the survey available to the trade by December, 1927, in time to help them in deciding individual and group sales, advertising and distributive policies for 1928.

The suggestion has therefore been made by members of the trade that the National Confectioners' Association, from any funds in its treasury not otherwise allocated, or by voluntary subscription of members if necessary, provide funds with which to employ at once the additional personnel needed and have them work under Mr. Purdon's supervision and direction. The employment period involved, so far as the association would be concerned, would terminate on June 30, 1927; the personnel involved being placed on the Government rolls as of July 1 and paid from Government funds thereafter.

It is understood that the Executive Committee of the association is now considering this matter and it can hardly be expected that they will fail to make some provision for the relatively small sum in order that a project so important to the trade may be immediately inaugurated.

Never has our industry enjoyed such whole-hearted, practical cooperation as it is now receiving from our Government at Washington. The trade should miss no valid opportunity to show its appreciation and sincere desire to reciprocate.

The Candy Industry's Greatest Opportunity

Ability of the Individual Manufacturer to Make the Educational Campaign Pay Him May Be the Real Test of His Ability to Continue in Business

A YEAR or two ago at an advertising convention the secretary of an association of manufacturers listed a dozen menaces to the conduct of a successful campaign of co-operative or educational advertising on the part of an industry. All of them were important. Failure to dispose of any one of the dozen is always tremendously costly.

But this speaker ignored one major menace which too often is either ignored or overlooked in joint advertising efforts. He did not mention the manufacturer who contributes to the campaign he knows his industry needs and then sits back calmly confident that his sales and profits will begin to rise automatically.

Fortunately the men at the helm of the National Confectioners' Association cooperative campaign are aware of the danger represented by this type of individual. Besides being aware of the danger, they are busy showing the individual manufacturer what he needs to do to get back dividends in his contribution to the advertising fund. And there is a definiteness to their instructions that leaves mighty few loopholes.

Matters of organization and finance relating to the campaign seem to be pretty well out of the way. The pledges at the present time total approximately $850,000, we understand, and increasing every week.

This amount will be considerably larger before the Atlantic City convention meets. With details of organization and finance largely out of the way, interest naturally focuses on the advertising itself as it appears each month and on the manner in which this advertising is capitalized on by manufacturers, jobbers and retailers.

It is not overstating the fact to point out that no co-operative campaign has been promoted *to the trade* in a more compelling or more explicit manner than the current campaign in behalf of candy. The Salesmen's Bulletins that have gone out so far from the National Association, the writer believes, come close to being models in their logical, thorough and interesting presentation of the advertising. Taking bulletin number 2, which described the Mother's Day advertising, as an example, the manufacturer, jobber and retailer all find definite instructions—and they are sensible, easily followed instructions—as to what each can do to make this advertising lead to more sales. What these specific recommendations will amount to is entirely up to the individual who has salesmen working for him. The committee charged with this promotion can scarcely go farther than it has gone. It has set up guideposts of better merchandising for the manufacturer, jobber and retailer to follow. Nothing under the sun will be of any avail now unless these factors pick up the burden and utilize the advertising as directed in the Salesmen's Bulletins.

The decision on the part of an industry to pool some of its resources for the purpose of creating greater selling opportunities is a fine, healthy indication. It would indicate, for one thing, that the industry is reaching toward the point where it wants to sell on the basis of quality and service to its market. If the industry does not intend to sell quality and service, it would do better to save the money it puts into advertising. That is fairly well recognized; but it is not so well recognized that if that advertising is to pay dividends, the individuals contributing to the campaign must tie up their own selling efforts with the advertising.

The candy advertising now appearing in the Saturday Evening Post, Liberty and Cosmopolitan is going to sell mighty little of any one manufacturer's merchandise. What it will do is make people think of candy oftener and more intelligently. Some of the dollars now spent for books, for flowers, for hosiery and a dozen other products will be available for candy. Which manufacturer will get his full share of those dollars? No one but the manufacturer whose sales manager sees to it that his men capitalize on the new opportunity for sales. No one but the manufacturer who sells harder in order to make the new opportunity, the greatest opportunity that the candy industry has ever had, yield its fullest possibilities. "The advertising is no panacea for poor or weak sales efforts," said V. L. Price, president of the National Confectioners' Association, in a letter to contributors to the advertising campaign recently. There you have the whole story in a nutshell.

If the advertising is anything at all, it is a clean-cut, specific reason for better, more vigorous sales efforts on the part of every factor in the industry. Perhaps if manufacturers, jobbers and dealers can be taught and reminded frequently that the advertising is really an effort to educate great masses of buyers to think about candy oftener and to know it better for what it actually is, they will see more clearly its significance as an opportunity for rising sales and profits. The national advertising campaign, any merchandiser can prophesy confidently, won't move much merchandise of itself. But it will educate the consumer in a way that will make selling easier; and, after all, it is the item that sells easily that offers the basis for adequate profits and lasting success.

We venture the opinion that those companies that utilize the national advertising campaign most intelligently as suggested in the Association's bulletins will be up among the leaders in the industry five years from now. Those who do not capitalize on the advertising by making a bigger selling effort than ever will lose ground no matter how solidly established they appear to be now. The co-operative campaign of advertising now in progress is the industry's greatest opportunity. To look at it from any other angle is to see it through a haze.

Q. S. QUALITY THROUGH SANITATION

A department, conducted by The Industrial Health Conservancy Laboratories, for purpose of promoting Sanitary practices in the confectionery industry.

"Q. S."

THE prescriptions of every physician contain the stipulation "Q. S.," meaning "Quantity Sufficient." The prescriptions of every candy manufacturer should contain the same stipulation, "Q. S.," only this time it should mean "Quality Sufficient." "Quality Sufficient" to pass the most rigid tests of any public health sanitary official. "Quality Sufficient" to equal the highest standards of sanitation and purity maintained by any manufacturer in the industry. "Quality Sufficient" to satisfy the most discriminating consumer of candy.

Quality is never "sufficient" in the candy industry until sanitation plays a full and a continuous part in every department. Sanitation is the invisible but priceless ingredient. The prescriptions of the candy manufacturer should always specify this priceless ingredient. The "Q. S." should denote not only "Quality Sufficient," but "Quality through Sanitation."

The prescription of the doctor is readily and exactly filled. Long years of codification have led to pharmacopeias and formularies. No adequate sanitary codes exist for the candy industry. Sanitation is not only an invisible ingredient, but a nebulous one. A vague appreciation for the need of sanitary practices is given to every candy producer, but the proper achievement of sanitation is rarely attained because there exists little understanding of exact requirements, and even less knowledge of methods of procedure and control.

In order to aid all readers of this publication to watch their "Q. and S.'s" of sanitation in candy production, this new department is to provide materials and methods tending towards exactness of sanitation in the industry and to serve with the industry itself in its efforts to secure better standards of sanitary quality. Ultimately we expect this work will lead to a sanitary code for the candy industry.

The Sanitation Forum

EVERY month, a portion of the space allotted to this department will be given over to a variety of items arising, it is hoped, from a close contact between the editors of THE MANUFACTURING CONFECTIONER and those of you who are actually developing experience, good or bad, in the confectionery industry. An invitation is extended to submit brief statements of good or unfortunate sanitary experiences, (no names being mentioned if so requested) suggestions for future articles, specific requests for information, criticism and comments on published material in this department.

The only limitation attending this Forum Material, apart from brevity, is that in some way the material be pertinently related to the sanitation of the candy factory and its products, the hygiene of the candy worker, or the nutritional qualities of confections. Queries arising, lacking general interest for the industry and those of a confidential nature will be answered by mail.

What do you think of our temporary slogan?

"QUALITY THROUGH SANITATION"

The Tail of the Ox

AN OLD Creole saying runs, "Not just once does the ox need his tail to brush away the flies." This proverb might well be applied to the candy industry—to paraphrase it—"Not just once does the candy manufacturer need to turn his thoughts to sanitation in his factory." One flick of a sanitary conscience will not chase away the dirt, the bacteria, and all the other unsanitary features in a factory. One order given from the executive's office does not mean maintenance of plant cleanliness nor a sanitary product. Continuous vigilance, continuous observation of sanitary procedure, continuous education of the workers and the foremen—these are the only satisfactory methods of keeping the "flies" brushed away.

It is said of Napoleon that as he rode silently at the head of his armies his chief diversion was to answer over and over the self-imposed question, "What would I do if right now in this situation I were attacked by an enemy?" The candy manufacturer rides at the head of his armies of workers. Enemies to purity and quality and sanitation are always nearby—the enemy bacteria and fungi, the enemy dirt, the enemy the diseased worker, the enemy impure raw materials, the enemy vermin and insects, the enemy decomposition and decay.

In sanitation, as is true in many other enterprises, leadership determines the results. A company of goats commanded by a lion becomes a company of lions, and a company of lions commanded by a goat becomes a company of goats. The sanitary concepts of the average industrial worker are not of the highest order and usually are not an assurance of that degree of sanitary safeguarding desirable for food products. A sanitary conscience is attainable, but is probably not born within us. In the candy industry the acquisition of the much needed sanitary results is an *outgrowth* of intelligent sanitary leadership.

Washington Aids Cocoa Corner

Lenient Interpretations of Government Restrictions Now Manufacturers' Only Hope of Breaking Cocoa Corner

New Federal Quality Restrictions Inopportune

FULLY twenty per cent of all the arrivals of African cocoa into this country are being condemned and refused entry by the U. S. Department of Agriculture, lending color to the assertion that unintentionally and indirectly, Washington has become the greatest single factor in support of famine prices for cocoa in this country. The new quality restrictions, designed to protect both the industry and the consumer, went into effect at a very inopportune time. The foreign propaganda which was to lay the groundwork for possibly a two or three-cent squeeze was just getting well under way. Then came this drastic change from the liberality of the old rulings—playing unwittingly into the hands of the Combine and giving them a wholly unlooked for opportunity to turn their maneuvers into a real scoop.

The Appraisers' Stores were already taxed to capacity by the increasing magnitude of the importations into the port of New York, and lacked both the time and facilities for giving cocoa the thorough practical examination which it demanded. Unable to cope with the staggering amounts of cocoa piling up on the docks and in the licensed warehouses, many bad lots were passed without the merest pretense at examination, while a great many good lots (with perhaps a mouldy bag or two which happened to fall under the sampler's "theif") were unqualifiedly condemned and ordered shipped back to the country of origin.

The enticing possibilities of paper trading on the newly organized cocoa exchange made it unnecessary for shippers to deliver actual cocoa to this market in order to participate in its profits. Sales could be made on the exchange for distant positions, leaving the actual commodity safely stored in European warehouses at a ridiculously low storage rate of something like a cent a bag. They refused to consign their shipments and run the risk of having them rejected by the United States government. The fluctuating consignment stocks which had for years acted as a sort of safety valve restoring equality between supply and demand in this market, passed quietly out of existence.

The day came when the shipper could sit back and refrain from shipping cocoa to this country until the importer agreed to assume full responsibility for it from the time it left the other side. And even worse than this, some of them deliberately shipped their worst stocks to this country, knowing that they would be condemned and that a month or more must elapse in replacement, during which period the market must of necessity continue to advance.

Here was the spectacle of boatload after boatload of cocoa arriving in New York—*all sold before it arrived!* Refuse entry to twenty per cent of it right off the bat—tie up the remainder, sometimes 40,000 bags in a single purchase, to one or perhaps two of the largest manufacturers and you have a picture of the rest of us staying in at the feast and going away hungry.

"Fresh Must" Mould Vs. Insect Matter

Is the Department of Agriculture straining at gnats and swallowing camels? The new restrictions limit the percentage of defective beans in each importation to 10 per cent. These defects may comprise wormy beans, mouldy beans, or both. Both mould and animal matter are put on an equal status, despite the fact that the former is detrimental only to the produce which contains it, while the latter constitutes a continual threat against anything which may be stored in proximity to it. Long before the beans are roasted and the animal life killed, such parcels send forth their messengers of destruction to infest our warehouses and our factories. A 10 per cent tolerance for living insect matter *is much too high.*

"Mould" Vs. Insect Matter

Mould, especially if it be of the so-called "fresh must" type, presents an entirely different problem. It has been determined that fresh must may be present up to 15 per cent without seriously affecting the quality of the product. The high temperature of the roasting process effectively destroys these harmless vegetable organisms and removes any possible taint of flavor.

Mould of this character is the result of exposure to the elements on the open docks of the shipping ports. Rain beats down upon the cocoa as it lies waiting for a steamer. In the darkened holds of the vessels must develops on the way over. This condition we have always had with us and we will probably continue to have trouble with it until we can educate the natives at the shipping points to keep their stocks covered until they are loaded into the steamers for their final voyage here.

The major defect in the great bulk of the condemned cocoas is this "fresh must." Consequently, granting the wisdom of a thorough government inspection, the department might well be a little lenient at this time. Must is not a serious defect, while insect matter is.

This whole system of government inspection intended for his protection has turned out to be a ghastly joke—on the manufacturer. A youth about 19 years of age is charged with the responsibility of sampling all cocoa arrivals into the port of New York. He has had no previous experience whatever with the handling of cocoa. Shown some samples of clayed Porto Cabellos, he insisted that they were not cocoa but some other material with which he was not familiar. Whether a lot consists of ten bags or ten thousand bags, it is customary for him to draw samples from about three bags, carefully average them and decide whether or not the lot is up to standard.

If in his judgment the sample is sound within the meaning of the government restrictions, *the lot is passed without recourse to any other authority.* But if he considers that the lot is *not* sound, he takes the sample back with him to the appraisers' stores where a single person, a layman incidentally, passes finally upon it. We doubt seriously whether it was ever the intention of Secretary Jardine to lavish such wide discretionary powers upon these two individuals when he signed the new restrictions.

The Weak Link in Cocoa Situation

Brokers constantly report the passage of lots containing 28 to 36 per cent of defective beans, and the unqualified condemnation of lots of fine quality African and Sanchez cocoas showing as little as 6 per cent of the "fresh must" type of mould. Here is the weak link in the cocoa situation.

Foreign coatings and cocoa butters, manufactured from cocoas rejected by our government and the flavor masked with vanillin, are beginning to make their appearance on this market. Soon they will pour in upon us from all sides to compete with us at impossible prices. Would such competition be possible with the present high rates of duty if prime raw materials were used? Where are the restrictions on these materials?

We are definitely committed to the policy of Federal restrictions upon the quality of imported raw materials and finished products. But such restrictions must not be imposed hastily, administered inexpertly, or surrounded with legislative fiat. Instead they must be interpreted with a certain amount of leniency and understanding until the slow processes of adjustment and education begin to take hold on the trade. Of what satisfaction can it be to the Department of Agriculture that foreign shippers are unwilling to ship *good* cocoas to this country *because the risk of accidental condemnation is too great?*

Restore confidence abroad in our ability to judge importations on a strict basis of actual merit. Let a board of three be formed to represent the interests of importer, manufacturer and the Department of Agriculture, and to adjudicate questionable lots of cocoa from a purely practical and scientific standpoint. Make it known that we will not permit this market to become a public dump for refuse cocoas but that we are willing to provide adequate assurances of protection to shippers who are honestly trying to conform to our standards of quality.

That confidence once restored, the flood gates will open to our old time supply of cocoa. Our momentary pressing demands will be gradually relieved. Then will come sanity and equilibrium.

Write to Washington

Write to Washington—to Secretary Jardine of the Department of Agriculture. Put in your plea for leniency until the crisis is over. Secretary Hoover did as much for industry during the rubber corner. The Department of Agriculture is the key to the cocoa situation. Pull out the letterheads and get to it!

Factors That Influence the Keepability of Marshmallows

II—The Influence of Humidity on Marshmallows

IN AN article entitled "Factors that Control the Keeping Qualities of Confectionery," with particular reference to marshmallows, published in previous issue of THE MANUFACTURING CONFECTIONER, it was pointed out that generally retail merchants state that they experience very little difficulty in keeping their marshmallows in saleable condition. Since, however, they seemed to have no idea as to how long they could keep marshmallows, it was thought worth while to determine more definitely the shelf life of this confection. The present article is the result of our findings on the keepability of the plain, white, cast marshmallow.

Why Marshmallows Become Unsalable

As is well known, marshmallows become unsaleable for two main reasons. The first is that marshmallows on being exposed to dry air lose moisture and become hard; and secondly, the ingredients of the marshmallows, principally the sugars, gradually come to a state of equilibrium and change the texture of the product. By this change in equilibrium are implied several processes, such as the graining or crystallization of sugars, which proceed at rather slow rate of speed or are completed only at comparatively long intervals of time, depending, of course, upon the composition of the marshmallow and the treatment it receives. Of these two factors which cause ageing, probably the more important and the more noticeable is the influence that the weather has upon marshmallows, especially over extended periods of time.

What Is "Relative Humidity"?

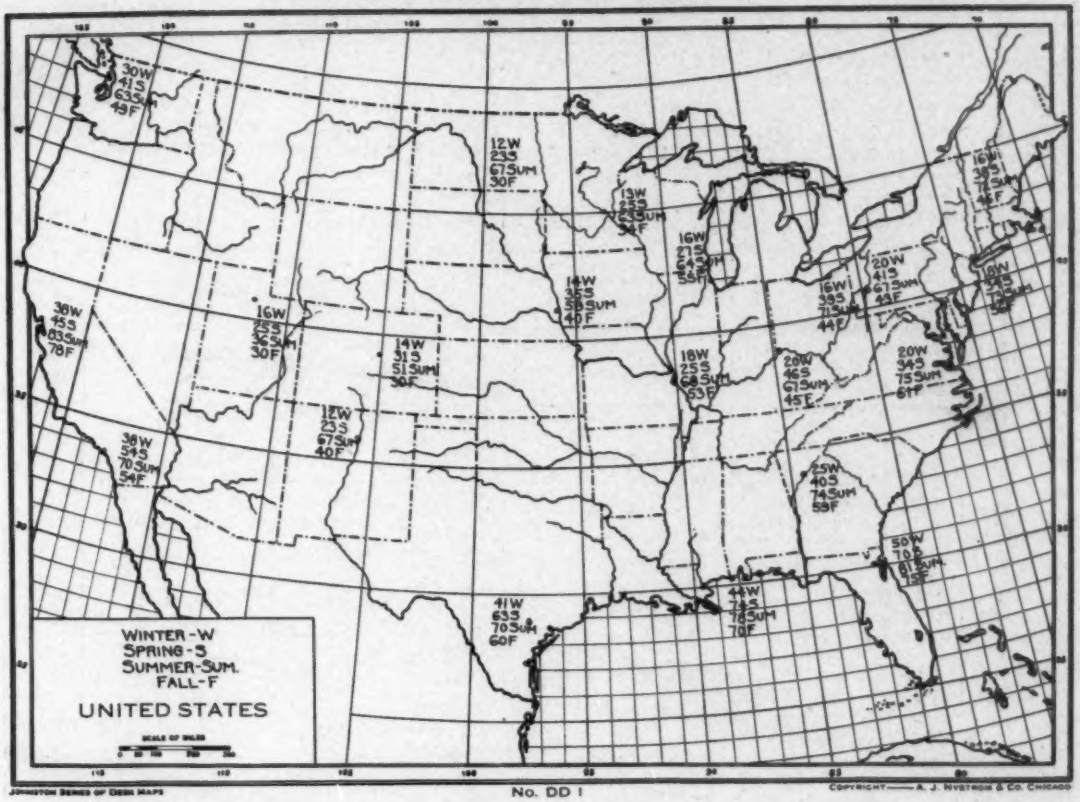
Weather is the principal factor which determines whether or not a marshmallow will or will not dry out, and the influence of weather is determined entirely by the temperature and the moisture content of the air. Air, depending upon its temperature, is capable of holding, as a mechanical mixture with itself, varying quantities of water vapor. At high temperatures air will hold comparatively larger quantities of water than at lower temperatures. Cold air is saturated when it contains a very small amount of water vapor, whereas warm air is not saturated until it holds a much larger quantity. Air which at any given temperature contains all the moisture that it can hold is said to be saturated at that temperature. This degree of saturation as related to its temperature is expressed by the term *relative humidity.* A relative humidity of 50% means that air, at its given temperature, contains 50% of the water vapor it can hold. Relative humidity is then an expression in percentage of the degree of saturation of the air at any given temperature. The fact that warm air can hold much larger quantities of water vapor than can cold air explains why marshmallows dry out so rapidly during the winter months. Outdoor air at zero, even if fully saturated, contains but 0.5 grain of water vapor per cubic foot. If this air is heated indoors to 70° F., the capacity of the air to hold moisture is increased to 8 grains per cubic foot. If no moisture is added, the relative humidity of the heated indoor air is but $\frac{0.5 \times 100}{8} = 6.25\%$. Air of such low humidity ex-

TABLE I

Showing the Influence Humidity Has Upon Marshmallows

Percentage Relative Humidity	Marshmallow No. 1 — Percentage Loss of Weight 1 day	2 days	4 days	30 days	Life	Hardness	Marshmallow No. 2 — Percentage Loss of Weight 1 day	2 days	4 days	30 days	Life	Hardness
19%	4.25	5.6	7.1	...	...	...	5	6.6	8.6	...	...	...
35	2.75	4.0	5.6	9.72	1.8	...	3.4	4.6	7.3	12.24	1.7	...
51	1.50	3.0	5.0	9.54	2.8	11.2	2.6	4.3	6.5	10.67	3.84	9.09
51	1.00	1.5	3.0	6.76	19.0	7.94	1.7	2.5	3.2	7.30	15.0	6.30
56	0	0.75	2.5	4.0	34.5	6.46	0	1.5	2.0	4.17	37.0	5.54
73	0	0	0	0	40.6	5.65	0	0	0	0	46.6	5.07

MAP SHOWING SEASONAL VARIATION IN HUMIDITY



erts a tremendous drying effect and marshmallows exposed to such air would soon become unsaleable.

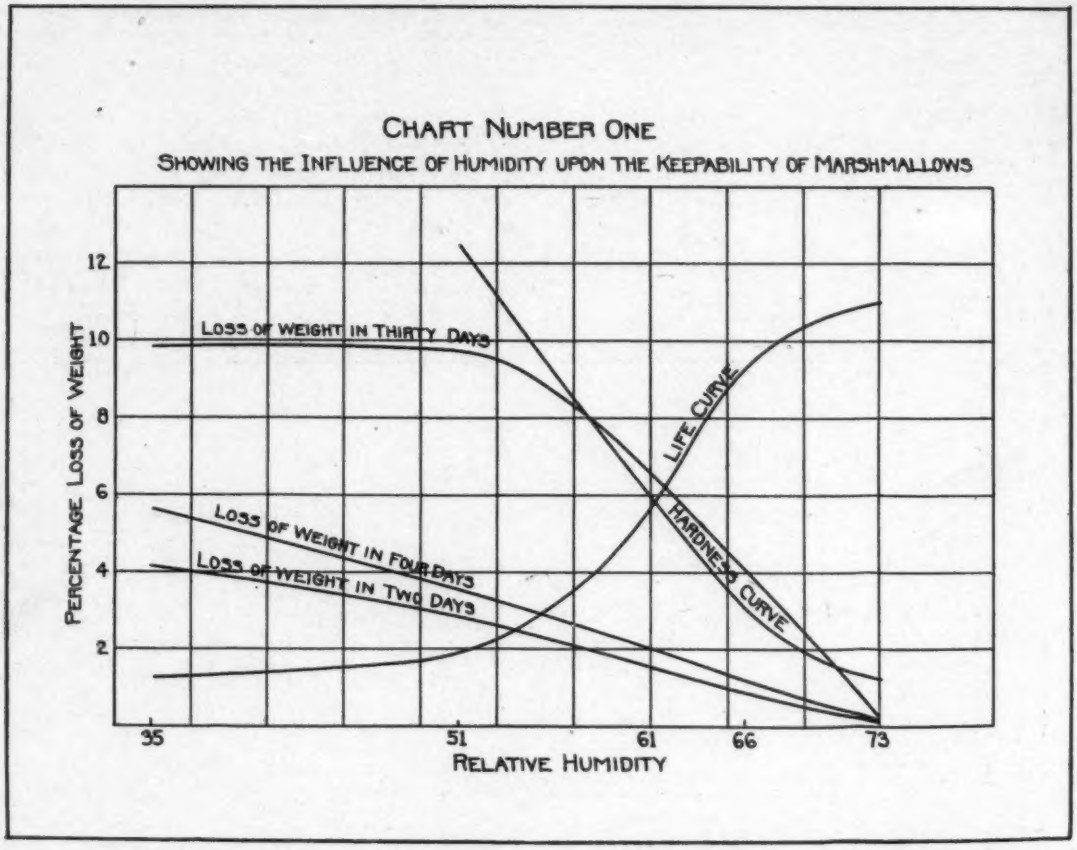
Making use of data furnished by the United States Weather Bureau, the indoor humidity existing in storerooms, in different cities at 72° F., at different seasons of the year, was calculated. From these data, which are given in the accompanying map, it will be seen that the average relative indoor humidity existing in storerooms at the various seasons of the year is as follows: winter, 19%; spring, 35%; fall, 51-61%; summer, 66-73%.

A series of containers were then prepared in which the humidity was adjusted to duplicate conditions existing during these various seasons. Several of the popular brands of marshmallows were then placed in these containers, which were maintained at 72° F., and their loss of weight determined at regular intervals. The losses in weight shown by two of these brands of marshmallows are given in Table I, and in Charts I and II are given graphical presentations of these facts. In these charts the percentage of relative humidity is given along the bottom and the percentage loss in weight along the side of each chart.

Conclusions on Humidity Tests

From these data it is evident that marshmallows should keep satisfactorily during the summer months, because they lose very little weight when exposed to the humidities existing during this season of the year. During the fall months these losses are slightly increased. They are still greater during the spring months and greatest of all during the winter months. From this information it may be concluded that marshmallows keep best during the summer and least satisfactorily during the winter months.

The charts bring out clearly the fact that the rate at which a marshmallow loses moisture is dependent upon the humidity and the time of exposure. By the aid of these charts it is possible to calculate the loss of weight of a marshmallow at any given humidity. The manufacturer has only to refer to the map and determine with its aid the percentage of relative humidity which may be expected in a certain locality, and then by consulting the charts he can find definitely the influence



that a particular climate will have upon his product.

It is unfortunate that data are not available that illustrate the effect that humidities greater than 73% have upon the keepability of marshmallows. In certain regions of the United States the humidity goes above this figure. In general, however, it will be found that, whenever marshmallows are exposed to humidities greater than 73% relative, they will take up moisture and become sticky.

Along with the data regarding losses in weight are given figures indicative of the texture of the marshmallows after being exposed for thirty days to the humidities mentioned. These figures have been selected as representing numerical values of the life* and hardness* of the marshmallows examined, which are so often referred to by the candy manufacturer. These data are also given in the accompanying charts. There may be a difference of opinion as to when a marshmallow becomes unsaleable, but generally it may be said that, if the hardness of a marshmallow is greater than 5.5 or if the life is less than 35%, it is unsaleable.

According to this viewpoint, it becomes evident that a marshmallow may still be saleable after exposure to summer weather for thirty days. During the fall and spring months a marshmallow will become unsaleable after one week's exposure to the weather, and during the winter months even as little as two days' exposure will cause marshmallow to become unattractive in appearance.

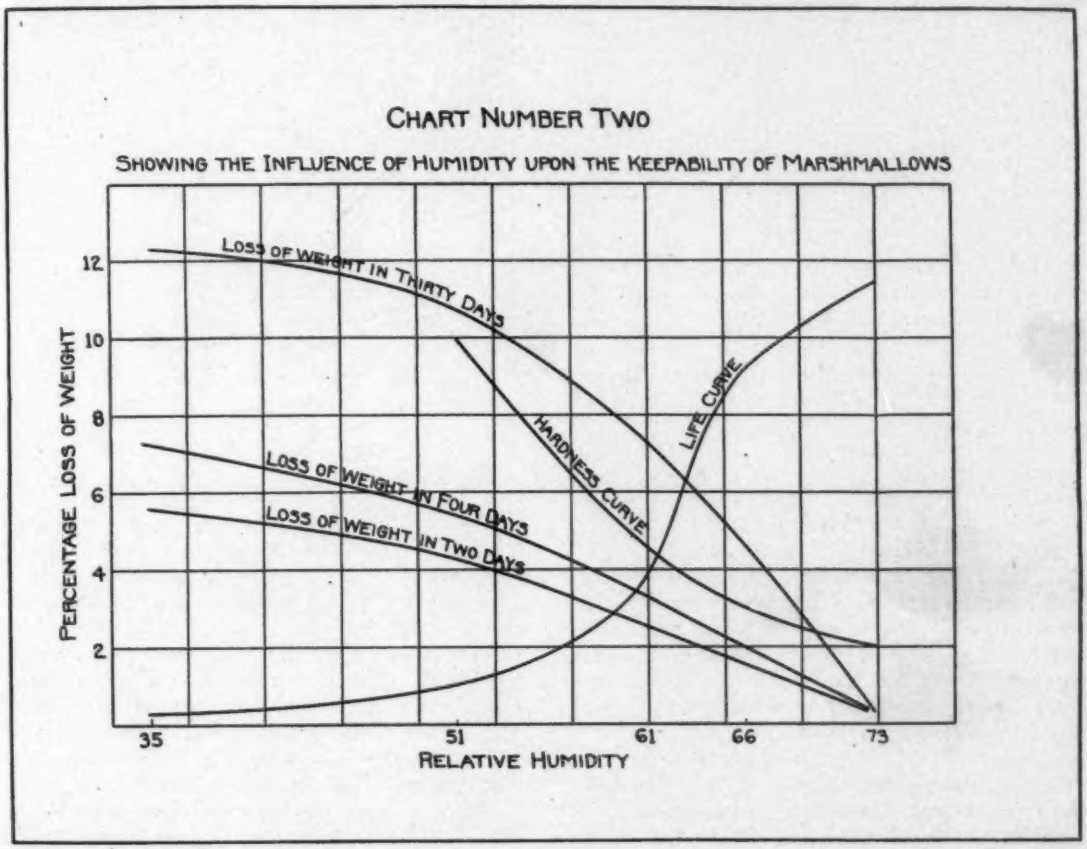
The data presented apply only to bulk goods; but as all packaged marshmallows eventually are exposed to the weather, these findings are applicable to all plain white cast marshmallows. To overcome the effects of the weather, two causes of prevention are open to the manufacturer. He may pack his confection in either tin or cardboard boxes, which should be sealed so that the marshmallows will be entirely isolated from the outside air. The marshmallows will then be in a little world of their own and, with the exception of being subjected to variations in temperature, they will be influenced solely by the condi-

*A method has been devised which will measure quantitatively the life and hardness of a marshmallow. This method will be described and discussed in a subsequent article.

tion of the air contained in these packages. Since, however, the volume of air in the package is small compared with the volume of marshmallows, this air should have little influence upon the ageing of the product.

And then if the manufacturer will inclose in each package instructions as to how his product shall be handled and the precautions which must be exercised regarding its storage, he can add in preventing to a great extent the ageing of his product due to atmospheric conditions. The manufacturer may also resort to another method of keeping his goods fresh, and that is by so adjusting the formula used in manufacturing that his goods will be capable of resisting climatic conditions ordinarily encountered in different parts of the United States. That is, the formula used in the production of marshmallows may be modified to suit the conditions met with during the four seasons and to thus satisfy the requirements of definite areas.

February 9, 1927.



THE ADVIEWER

Casual Comments on Current Candy Advertising

WITH this issue of THE MANUFACTURING CONFECTIONER we present a new feature devoted to comment on candy advertising. No one questions the assertion that advertising is one of the greatest energizing forces of business today. As a sales lever, as a builder of good will and a guardian of reputation its power is acknowledged almost universally. Manufacturers seldom inquire, "Does it pay to advertise?" They know that it pays when the product is right, when the advertising is well planned and when it is exploited by the advertiser. That being the case, the advertiser's logical concern is finding an answer to the question, "How can I make my advertising pay the maximum dividend?"

By selecting representative candy advertisements The Adviewer aims to show how various manufacturers are coupling intelligence with their sales efforts in print. The Adviewer has neither an axe to grind nor a club to swing. Several national magazines today have circulations running well over a million. The more important newspapers are climbing up near that mark. White space, as a result, costs real money. A full page, for example, in some periodicals will cost a manufacturer as much as his son's college education. The Adviewer's ambition is to stimulate more and sounder thought regarding one of the greatest assets of business, when rightly used.

The First Gun

Trying to appraise an advertising campaign on the strength of a single piece of copy is a task for half-wits and experts. Now that the first gun of the National Confectioners' Association has been fired, it's a safe bet that there will be plenty of speculation as to the gun's calibre and range. Admittedly the aim of the campaign is to sell more candy. Will this advertisement of itself sell more? Probably not. If it was more than noticed by half the readers of the magazine where it appeared, the association may well feel satisfied. If half

CANDY

Sweeping in ... *Just like an Orchestra*

of those who noticed it read the copy through, many congratulations to artist, copy writer and advertising agency executive are distinctly in order. Does "romance sweeten and enrich the candy you buy" to the average purchaser? Does the average purchaser care much of anything about the lands that contribute to the candy he takes home on Saturday afternoon? Or is he concerned primarily with bringing a gift to the family that because of its prestige stamps him as a man among men of discernment? Regardless of those questions, a campaign must start somewhere and the start is probably the least important detail. Measured by every standard but "Does it sell?" this is an A-1 advertisement. And it is not quite fair to ask "Does it sell?" for the reason that this piece of copy's effectiveness cannot be judged as a separate thing. The advertisement is part of a great campaign, one advertisement in many like one instrument

in an orchestra, to borrow a simile from the advertisement itself. Whether the campaign as a whole sells more candy is going to depend not on any one piece of copy. It will depend on how nicely the campaign is orchestrated and on how earnestly manufacturers and their salesmen sell the advertising to their customers.

ANGELUS
MARSHMALLOWS
USE them in food dishes. Our Angelus Recipe Book takes you into a new and delightful realm of cookery. Contains many original recipes. We'll gladly send you a copy — FREE!
The Cracker Jack Co.
Angelus Marshmallows
Blackstone Marshmallow Salad

Brief but Effective

This Angelus marshmallow advertisement which appeared recently in a women's publication doesn't say much, that is, it doesn't use up many words. What it did is a better commentary on how well the Cracker Jack Company's dollars were spent. Without any coupon it brought a heavy response of requests for the free recipe book mentioned. Here the advertiser has used contrast effectively to get display in relatively small space. Some folks will tell you that if you make your copy interesting you don't need to worry about its being read through to the end. However, with publications becoming more and more crowded the wisdom of long copy is being questioned seriously; and advertisers are using what has been called "posterized"' copy which grabs the reader for a few seconds and flashes a short message before his eyes. Not every housewife is yet aware of what she can do with marshmallows in her kitchen. The illustration of the salad in this advertisement gave her a hint. The copy told a little more of the story and when she sent for her recipe booklet she found the company plussing the offer contained in the advertising with a generous free sample.

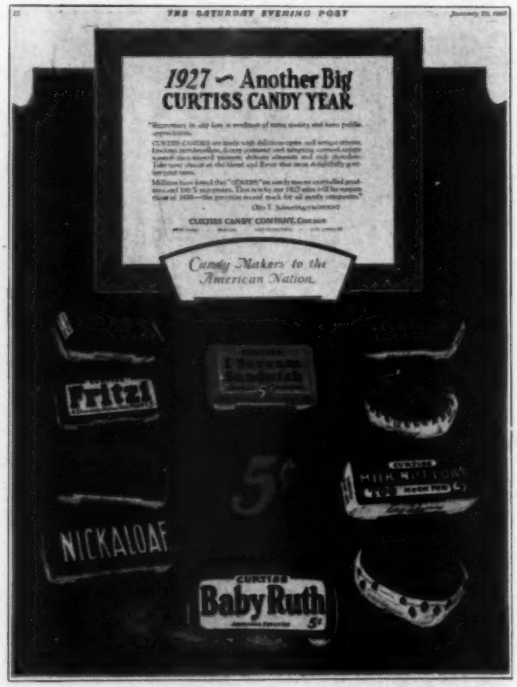
Building Dealer Good Will

One quick glance at this advertisement is enough to tell the magazine reader whose candy is being talked about. It is a Whitman ad and no mistake. But instead of bearing down on chocolates it does an unusual missionary job for the dealer. Probably the man in the street seldom finds occasion to list the special days or seasons of the year when candy is highly acceptable as a gift. This advertisement does it for him via the picture route. And the illustrations and copy dovetail in a way that suggests real craftsmanship. The point is simply this: after looking at the illustrations for a moment any reader will listen to the argument that it is a convenience to leave a gift list with the druggist and to let him make deliveries on proper occasions. Mr. and Mrs. Consumer have been reading about Whitman's chocolates for a long time. Now the company makes an attempt to sell the Whitman's dealer to them.

Few advertisements actually sell merchandise. They may start a sale but usually it is up to the dealer to make or break after that. Holding a conversation with the consumer over the dealer's shoulder is a tricky stunt. Here Whitman's does it skillfully. The consumer of candy may or may not be sold on Whitman's by this advertisement but the Whitman's dealer is almost sure to be.

Making the Dime Look Big

It's been a long time since a thin dime would buy much. Here is how the Campfire Company puts its purchasing power under a magnifying glass. Temporarily the use of marshmallows in home cooking is sidetracked to emphasize the dime package. For a long time Campfire has advertised marshmallows to women as the added touch of flavor that makes one woman's cooking stand out as different, a bit more distinguished than the average. Recipes have accompanied this advertising to the housewife. Here Campfire Marshmallows are back in their original role as a candy, with the quarter-pound box and the price sharing the spotlight. Other advertisers might note how full a story Campfire tells without wasting any words, how much relevant selling copy can be packed into an advertisement when illustrations and coupon take up considerably more than half the space used. It's a neat and symmetrical layout job, too. Some critics will vouchsafe the idea that stressing the price is poor merchandising. The emphasis on price is going to send more than one heavy mailsack of inquiries for sample packages and recipe booklets to the Campfire offices when this advertisement appears late next month.



Meet the Family

So much advertising pressure has been put back of Baby Ruth that a piece of copy letting purchasers know that Curtiss makes a rather sizeable line of bars is timely. Here are ten members of the family in four colors. The absence of what may be called selling copy for any one bar or for the whole group stamps the ad as institutional or prestige-building in character. As such it is something of an innovation, since candy bars selling for a nickel are rarely made the object of institutional advertising. This particular ad is dignified by running the copy over the signature of Otto Y. Schnering, president of the Curtiss Candy Company. The Adviewer likes the originality of the company in putting the pictorial element in the lower half with the copy itself occupying an upper instead of the reverse order which is the usual and commonplace practice. As for the black and uninteresting background, could not something lighter and a bit more

suggestive of flavor have been devised with greater effect?

To the one woman in ten thousand
-this Easter Gift
Candy—The Universal Gift—
Appropriate and Appreciated
Always—BUNTE BROTHERS
Mi Choice
Bunte
WHEN perfection alone will do—make Mi Choice your Easter gift offering.
Each piece proved perfection. Creamy fillings—true fruit flavors. Crispy nuts and a dozen other delights. And over all a superb chocolate coating—possible only by the fourteen day Bunte process of preparation.
If your dealer cannot supply you, send us $1.50 and we will mail you the one pound Mi Choice package postage prepaid. Also two, three and five pound packages.
BUNTE BROTHERS
Established 1876 . . CHICAGO
Makers of Diana "Stuf" Confections
Vary your gifts of candy with these three packages of distinction—"Home Made Sweets," "Tri Assortment" and Bunte Milk Chocolates. Bunte quality in both candy and package.
1200 KINDS FROM WHICH TO CHOOSE
Bunte
WORLD FAMOUS
CANDIES

Clipped Wings

Advertising is called on to shoulder so many and such varying tasks that it is a little difficult at times to criticize, either favorably or otherwise, without knowing precisely what an advertisement aims at doing. Here is a Bunte Brothers' piece of copy which does not seem to rise above mediocrity. Not that it bears any striking defects. Copy, art, layout and typography are all reasonably good but there is nothing striking, nothing individual about it, excepting the statement "possible only by the fourteen day Bunte process of preparation." Competition is keen enough among advertisers nowadays to render it imperative for a manufacturer to put some colorful, interrupting thought into his advertising or it won't be more than glanced at. Otherwise the page is turned or attention focuses on what some other less drab advertiser has to say. This ad needs a tonic of originality to make it sparkle and take on a bit of zest. It's only a short flight from the commonplace to the distinctive but making the jump with clipped wings is difficult and in the end expensive.

When you consider ways and means to increase your chain-store business, do you seriously think of the part quality plays? To create, maintain and increase your candy business, we suggest

Chuckle Nellie CANDY

FRED W. AMEND CO., CHICAGO

"twenty million pounds yearly"

White Space and Display

The use of display and white space in this business paper advertisement of Fred W. Amend Company has as much to do with the forcefulness of this terse piece of copy as the suggestion offered. Its manner is no less important than its matter.

FOR MOTHER—CHOCOLATES THAT RISE ABOVE MERE "CANDY"
YET — OBTAINABLE in your own neighbourhood, at a shop never more than a few squares' distance
SUNDAY—May the eighth! Be sure to mark the date. And for Mother, on her day of days, select a gift that reflects—by your care in its selection—the love you bear her.
Among the admiredly correct things of modern social observance, one finds Johnston's—candy that graciously portrays the accepted social usage of the day.
For Mother's Day we have prepared special packages expressing the sentiment of the occasion . . . in the usual wide variety you have come to expect from Johnston's . . . of the same high quality that has gained for Johnston's its prestige and preferment.
Johnston's
CHOCOLATES
NEW YORK CHICAGO MILWAUKEE MINNEAPOLIS OAKLAND

Sentiment Minus the Mush

Each year sees Mother's Day turned farther away from an occasion of real dignified sentiment and heading in the direction of maudlin mush. Candy advertisers can study the accompanying Johnston's treatment with profit, it seems to the adviewer. There's not a stroke of overdone sentimentality in either copy or art work. An atmosphere of quality, of social correctness and of certainty that a box of Johnston's will be genuinely welcome surrounds this page.

Shocking the reader into reading an advertisement and trusting that as a result he will rush off to the nearest retail dealers have long since become trite devices with advertisers. It is doubtful if the reader moves so rapidly in response to this type of advertising as he once did. Johnston's advertising, and this is a good example of it, aims at influencing the purchasing of the individual who buys intelligently and who has the means to buy the right thing. Shouting won't affect the man who thinks of a gift for Mother's Day half so much as persuasion in a more evenly pitched voice. Johnston's vote seems to be for persuasion.

A Long Look Ahead

ADVERTISING that will teach jobbers and retailers to look ahead and encourage them to push items of proved sales ability is good advertising. It should exert a stabilizing influence on an industry that has had more than its fill of jazz merchandising practices. Assuming that not many retailers will be led into any long period of concentrated thought by the headline, "Which candy will you sell 35 years from now?" the idea is put across skillfully, nevertheless, that the New England Confectionery Company has a background of producing successful confections, as evidenced by their well-known *Necco Wafers* launched thirty-five years ago and still going strong today.

This page in *Confectioners' Journal* is all the more effective because it asks no special favors of

Which candy will you sell
35 years from now?
ONLY one candy that you carry today was selling 35 years ago. No other has so long a record—a success year after year.
You will find Necco Wafers in practically every town and city in the United States. And last year they had the biggest sale in their history!
Fads come and go.
One candy remains—a steady-selling staple. Necco Wafers go on rolling up profits for every candy-stand that puts them on display.
You can start this profit-maker earning for you! Order Necco Wafers from your jobber. Display them like any other candy—they will sell as no other candy sells!
NEW ENGLAND CONFECTIONERY CO.
80 years of Successful Candy Making
Boston, Mass.
Necco Wafers
Displays of Necco Wafers have paid dividends to dealers for 35 years. Children and grown-ups buy them.

anyone. "Display them like any other candy—they will sell as no other candy sells," the copy says of *Necco Wafers*. Nicely laid-out and with the element of display handled in a workmanlike manner, the advertisement makes an effective page of trade paper copy. The Necco people are proud of their 80 years of candy making. That they know how to reflect that pride in their advertising without allowing it to become "high hat" is something of an accomplishment. It will be a surprise, however, if some other manufacturer or manufacturers does not rise to debate the statement that "Only one candy that you carry today was selling 35 years ago!"

Meet us at the Annual
EXPOSITION and CONVENTION
of the
NATIONAL CONFECTIONERS ASSOCIATION
at ATLANTIC CITY-May 23-28-1927
All under one roof — on the Steel Pier

Exhibitors, as of April 13th

United Chemical & Organic Prod. Co., Chicago, Ill.
Read Machinery Co., York, Pa.
Confectioners' Review, Cincinnati, Ohio.
MANUFACTURING CONFECTIONER Publishing Co., Chicago, Ill.
J. W. Greer Co., Cambridge, Mass.
The Haug Co., New York City.
Ferguson & Haas, Inc., New York City.
Essex Gelatine Co., Boston, Mass.
The Confectioners' Journal, Philadelphia, Pa.
Package Machinery Co., Springfield, Mass.
Blanke-Baer Extract & Preserving Co., St. Louis, Mo.
Foote & Jenks, Jackson, Mich.
H. Kohnstamm & Co., Inc., New York City.
The Nulomoline Co., New York City.
Vanilla Laboratories, Inc., Rochester, N. Y.
B. H. Bunn Co., Chicago, Ill.
M. A. Brown Paper Box Co., St. Louis, Mo.
Vacuum Candy Machinery Co., Chicago, Ill.
Kay-White Products, Inc., New York City.
Betts Products Co., Chicago, Ill.
C. M. Pitt & Sons Company, Baltimore, Md.
Ideal Cocoa & Chocolate Co., Lititz, Pa.
Sunland Sales Corp. Association, Fresno, Calif.
The Fleischmann Transportation Co., New York City.
Henry H. Ottens Mfg. Co., Philadelphia, Pa.
American Can Co., Chicago, Ill.
Clinton Corn Syrup Refining Co., Clinton, Ia.
Finnell System, Inc., Hannibal, Mo.
Schreiber Products Corp., Buffalo, N. Y.
United States Foil Company, Louisville, Ky.
Boyle's Publications, Chicago, Ill.
H. C. Hildreth Co., Boston, Mass.
Harold A. Sinclair, New York City.
McGraw Box Co., McGraw, N. Y.
Mogi, Momionoi & Co., Inc., New York City.
National Aniline & Chemical Co., Inc., New York City.
H. O. Wilbur & Sons, Inc., Philadelphia, Pa.
Union Confectionery Machinery Co., Inc., New York City.
Thomas W. Dunn Co., New York City.
Keller-Dorian Paper Co., Inc., New York City.
Reeves Pulley Co., Columbus, Ind.
Baker-Perkins Co., Inc., Saginaw, Mich.
H. Schultz & Co., Chicago, Ill.
A. D. Shoup Co., Brooklyn, N. Y.
Pilliod Lumber Co., Swanton, Ohio.
The Toy Kraft Co., Wooster, Ohio.
Wm. J. Stange Co., Chicago, Ill.
Thomas Mills & Bro., Philadelphia, Pa.
National Equipment Co., Springfield, Mass.
Bendix Paper Co., New York City.
Donald F. Duncan, Inc., Chicago, Ill.
Fred Lauer, Chicago, Ill.
A. E. Staley Mfg. Co., Decatur, Ill.
F. J. Schleicher Paper Box Co., St. Louis, Mo.
A. Huhn Manufacturing Co., Minneapolis, Minn.
York Manufacturing Co., York, Pa.
Brunhoff Manufacturing Co., Cincinnati, Ohio.
L. F. Grammes & Sons, Inc., Allentown, Pa.
Atlantic Gelatine Co., Woburn, Mass.
General Electric Co., Schenectady, N. Y.
Hobart Manufacturing Co., Troy, Ohio.
Standard Sealing Equipment Co., New York, N. Y.
Stuebing-Cowan Co., Cincinnati, O.
Bentz Engineering Corp., Newark, N. J.
Self-Locking Schurmann Co., Chicago, Ill.
Racine Confectionery Machinery Co., Racine, Wis.
National Bundle Tyer Co., Blissfield, Mich.
Sugar Sanding Machine Co., Baltimore, Md.
Associated Wooden Ware Mfgrs., Fitchburg, Mass.
H. Gamse & Bro., Baltimore, Md.
H. L. Friend Co., Boston, Mass.
Rice Chocolate Co., Everett, Mass.
Deline Mfg. Co., Denver, Colo.
Crescent Mfg. Co., New York, N. Y.
Sethness Company, Chicago, Ill.
Crystal Gelatine Co., Boston, Mass.
Knickerbocher Case Co., Chicago, Ill.
DuPont Cellophane Co., New York, N. Y.
Ira L. Henry Co., Watertown, Wis.
Smith Scale Co., Columbus, Ohio.
Hazel-Atlas Glass Co., Wheeling, W. Va.
Eppelsheimer & Co., New York, N. Y.
Paper Service Co., Philadelphia, Penn.
Hy-Sil Mfg. Co., Revere, Mass.
Newcraft Coating Machine Co., Springfield, Mass.
Anheuser-Busch, Inc., St. Louis, Mo.
Heywood, Strasser & Veight, Lithographing Co., New York, N. Y.
Carrier Engineering Corp, Newark, N. J.
Sanitary Cover Company, Pittsburgh, Penn.
Penick & Ford Sales Co., New York, N. Y.
John Werner & Sons, Rochester, N. Y.

Factors That Control Uniformity of Marshmallow

E. T. Erickson
The Shotwell Mfg. Co., Chicago

YEARS ago a certain candy manufacturer thought of expanding his line with package, 400 count and five pound tin marshmallows and looking for general information asked questions here and there. He got in touch with one of the largest confectioners in the country who after a brief informal discussion remarked, "Well, this marshmallow game is all right but just remember, when you go into marshmallow manufacturing, you go into something!"

Candy men who work with this temperamental confection will vouch for the truth of this statement and agree that the manufacturing of Marshmallow is more than the mechanical operations of beating, depositing, etc., for if this was all to be considered, we could imagine that the uniformity of the marshmallow would be dependent on the degree of mechanical precision of the routine of manufacturing. But such, we know, is not the case.

On Monday, we will say, the 400 count come through splendidly, on Tuesday there are no worries, but on Wednesday certain details and observations of the way the marshmallow "acts" seems to indicate that the undefinable "something" is wrong and sure enough, a tin or two of Wednesday's production shows an unusually heavy crust, a starch bottom or in the course of time a discolored drop, an abnormally dried marshmallow, a sticky mass, or any of the other undesirable characteristics we attempt to avoid.

Anyone conscientiously interested in marshmallow manufacturing, either as a specialty or as a part of a general line, and attempting to better this product, is constantly endeavoring for economic reasons, if no other, to overcome this seeming lack of uniformity which, it is commonly supposed, marshmallows exhibit to a greater degree than probably any other type of confection. The conditions under which chocolate as coating can be handled are very critical and demands control of temperature and other factors to secure the best results possible, and confectioners, regarding coatings more seriously than marshmallows have solved, in a great measure, the problem of control on this particular item. Until recent years marshmallows have never been taken seriously and those companies who recognize the factor of control leading to a uniform product are in a position to offer to the public a type of confection that is, we know, enjoying increasing sales. The question was —a uniform product having desired characteristics. The answer is—control, true scientific control of the conditions during the manufacture of the marshmallow.

For the moment, let us consider an everyday incident of control. The automobile we drive is equipped with gears for the transmission of force to the wheels. Roughly speaking, this force can either be power or speed, each used under different conditions, so we change or "shift" gears as the occasion demands. Now in handling the marshmallow this way one day and then that way the second day, we ourselves must vary conditions, operations and time factors to suit these variations, or otherwise as we "kill" our engine, so will we "kill" our marshmallow.

Let us assume that we are following a certain formula for the five pound tins—a formula such as you as a manufacturer are using today. Allowing the actual physical operations to remain the same; the beating of the batch to a certain weight, the casting, and the trucking of the stacks to the space or "set-up" room used to permit the deposited marshmallow to set up in the starch, let us center our attention on the control from this point to the time of knocking out, in other words, watch the drops while they are in the starch under the conditions of this set-up room and attempt to make a uniform marshmallow by properly controlling the starch drying factors as we might call them. Listing the commonly known factors which exert an influence on the marshmallow while in the starch we have the imposing list:

(a) temperature of the marshmallow at casting.
(b) temperature of the starch at casting.
(c) moisture of the starch at casting.

(d) temperature of set-up room (where deposited trays are kept).
(e) humidity of the set-up room.
(f) efficiency of circulation of air in set-up room.
(g) length of time of marshmallow in the starch.

It is assumed in this short article that the efficiency of circulation of the set-up room in which the deposited trays are kept to allow the marshmallow to set up is theoretically perfect as is the dry room for reducing the moisture content of the casting starch, in other words, the circulation of the air is such that the setting up or drying is identical in one stack as in another stack as well as different boards in the same stack. Incidentally, the larger manufacturers have found that mechanical starch driers have overcome the bugaboo of old-fashioned dry rooms.

Considering the unchanged formula mentioned before, it is logical to suppose that there is a certain set of conditions of these factors above under which a better marshmallow will be produced than under any other set of conditions, just the same that a certain chocolate as a coating will present a better appearance on the goods when handled correctly.

The method for arriving at and maintaining a desirable set of conditions is known as control.

When we consider the seven factors above, there are an almost limitless number of combinations and a blind attack would be neither reasonable or economical. In the first place, radical extremes in any of the above would not be tolerated by any experienced confectioner who, after all, bases his rule-and-thumb methods and tests on true scientific principles, which might be unbeknown to him at the time.

Now the marshmallow manufacturer is either satisfied with his product or he is not. If he is a fortunate member of the first group, he can well afford to pay attention to details of control and insure the popularity of his goods through the uniformity of his product. If the manufacturer is not satisfied with his goods, attention to these details of control can show that he can either improve his product by effecting changes here and there as the occasion demands, or it will show him that the game has him licked before the first batch is cast. Starch one day of 3 per cent moisture, the second day it happens to be 6 per cent moisture. One day the set-up room is, we will say 80° F. and 32 per cent relative humidity, the next day with the same temperature a radical change of the weather brings the humidity up to 75 per cent, but on both these days of very different conditions in the set-up room, the marshmallow is handled the same way and knocked out in the same number of hours. The goods of the first day we can imagine to be too dry, the goods of the second day will be wet and perhaps stick in the package.

The common sense way of attempting to control the factors that influence the uniformity of the marshmallow would be to secure the necessary apparatus and for a period of time, make daily observations and if need be, hourly tests, as on the moisture and temperature of the casting starch, the temperature and humidity of the set-up room, etc.

The few necessary pieces of physical testing apparatus can be secured from any scientific supply house. (The technical editor of THE MANUFACTURNG CONFECTIONER will list the apparatus needed and give general procedures for testing of moisture in the casting starch, operations of a sling psychrometer for humidity, etc., on request.) It is not the purpose of this article to go into the detail of testing, but sufficient to say that in routine work a true representative sample of the starch should be considered, and not just a sample taken at random. Any intelligent worker in the plant, with proper instruction can rapidly make the simple tests, reporting the results obtained for the consideration and action of the foreman or executives. One day, as stated before, the moisture content of the casting starch is 3 per cent, the next day it is 6 per cent. Two different products will result (if the other factors remain unchanged), the difference becoming more and more in evidence as the goods are aged in "shelf-life" tests. But perhaps three or four of the factors change each time tests are made, then the establishment of a standard marshmallow becomes more and more difficult!

Some factors we can control quite easily, as the temperature and time factors, but the moisture factors, in correct relationship with the temperature factors are more contrary and harder to bring under control. In spite of the difficulties encountered the first few weeks, we attempt to make records of conditions for each batch. After weeks of production, the marshmallows made on certain days are better than others. It is then for the manufacturer and the sales department to decide which

(*Continued on page* 52)

The Chemist's Column

Conducted by Herman Lebeson
Consulting Chemist, Chicago

A new department in which the Chemistry of confectionery and the raw materials of which it is made are discussed with practical application to problems of purchasing and production

Turbidiscope for Testing the Quality of Sugars

by K. L. Dern, Filtration Engineer

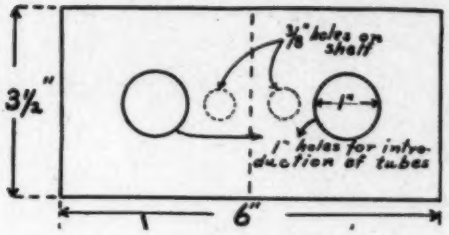
THE average buyer will compare the quality of two sugars by the appearance of the crystals, selecting, of course, the whiter and more brilliant of the two. When he dissolves these sugars in water, he will often be surprised to find that the one he thought was dull and lifeless gives a clear, colorless solution, while the brilliant sugar shows considerable cloudiness. The cane or beet sugar manufacturer knows that sugar made from the purest liquors may come out off color, if the size of the grain is not uniform, or the sugar was dried at too high a temperature. He has therefore developed a number of methods by which the quality of a sugar is judged on the basis of the impurities found in it.

A simple apparatus for determining turbidity in sugars was described by Dr. W. D. Horne and E. W. Rice in the Journal of Industrial and Engineering Chemistry, vol. 16, *p.* 626 (1924). *The turbidiscope described here by Mr. Dern is a modification of that apparatus. This simple device is used extensively in the sugar industry for showing the presence of very minute solid particles held in suspension in the heavy or thin juices as they come out of the filter presses.*

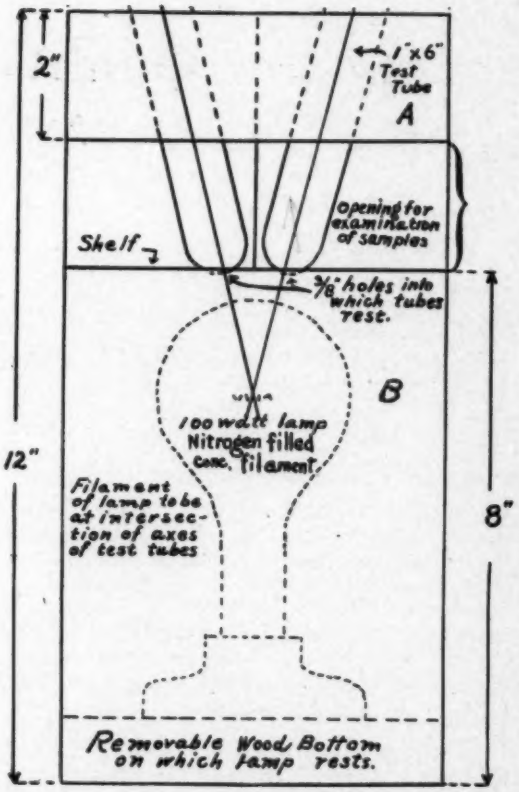
As applied to granulated sugars, this method will give quick results if used as a qualitative test. However, this test alone is not sufficient. In case the sugar solution is found clear, this test should be supplemented with a candy test (described and illustrated in our January issue—Editor).

IN the January issue of THE MANUFACTURING CONFECTIONER at least three of the articles published emphasized the importance of using only sugars of the highest purity, particularly in the manufacture of hard candies. If the candy manufacturer is to know beforehand whether or not his raw materials are up to specification as to purity or quality, he must be able to make at least some qualitative tests on the sugar which is to go into his product. One of the most useful simple tests that can be made is to observe the degree of clarity of a sample of the sugar when dissolved in clear water. There is a surprising difference in the clarity of the simple syrups made from different samples of granulated sugar, as any candy manufacturer well knows. The amount of impurities which is shown in this solution test is a good indication of the care taken in the manufacture of the sugar. Likewise, the amount of this cloudiness, or tur-

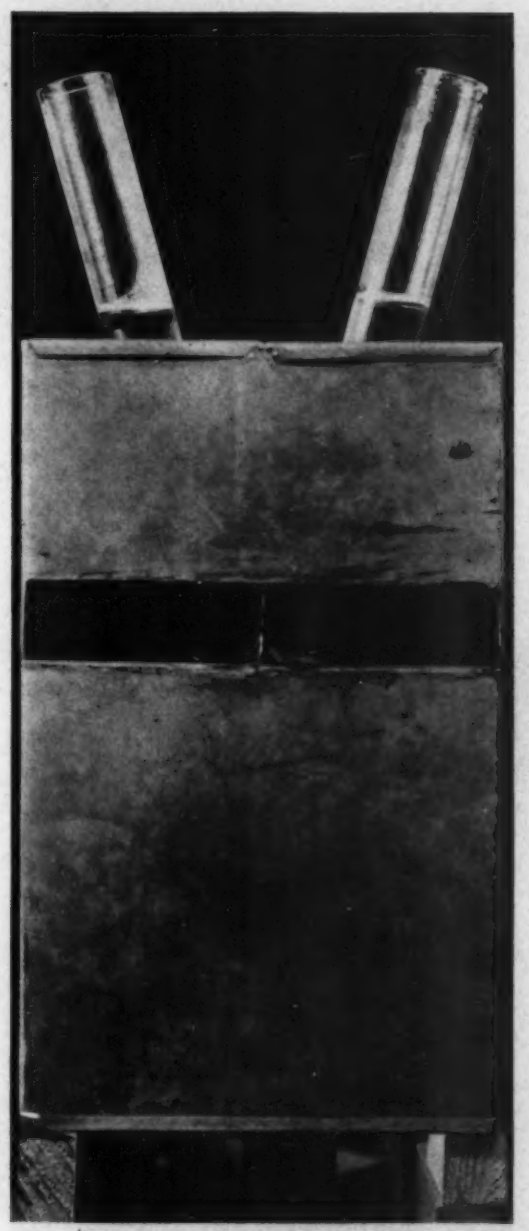
Construction of a Turbidiscope



Front view



Made of galvanized sheet iron—painted black on inside



This photograph shows the Turbiscope with solutions all set up for reading. Note the beam of light passing through the beet sugar solution in tube at right. The light is reflected by the impurities in the solution.

The tube on the left contains a solution of cane sugar of high purity. Note the light passes through the tube without being reflected, indicating absence of impurities. This is a quick elimination test for sugars. The sugars which show clear, like tube at left, should then be subjected to the regular "candy test."

bidity, is an excellent criterion by which the value of the sugar to the candy maker can be judged.

A simple and convenient turbidiscope for making the above tests is shown in the accompanying sketch and photo. The chief purpose of this device is to show the difference between two samples of sugar solution more distinctly than can be done under ordinary observation. When a solu-

(*Continued on page* 48)

tion of sugar or any other substance is observed for clarity by simply holding a tube or bottle of the liquid between the observer and a source of light, the sample may appear perfectly clear, when, as a matter of fact, there may be an appreciable amount of cloudy matter present which is so finely divided as to fail to show up by direct light.

When such a sample is subjected to a beam of light passing through the solution at a right angle to the line of observation, the cloudy matter suspended in the solution at once shows up as a sharp band of "smoke" or haze. This is known as the "Tyndall effect" which extremely finely divided particles have in dispersing a ray of light. The most common illustration of this Tyndall effect is, of course, seen when a small beam of light is admitted into a darkened room. The path of the beam of light is made distinctly visible by the dust particles floating in the air, although these particles are so small that ordinarily their presence is unsuspected.

The turbidiscope then is merely an apparatus for projecting a beam of light through a solution under test, the observation being made at a right angle to the direction of the path of the light. If the solution is perfectly free from suspended particles, the light will have no effect on the appearance of the sample, and on the other hand if the solution carries suspended impurities, the amount of these will be indicated by the degree of brightness of the path of light through the sample.

For the turbidiscope test, fifty grams of sugar are dissolved in fifty cubic centimeters of clear, distilled water. After the fine bubbles of air have been allowed to escape from the solution, some of the solution is poured into a 1-inch test tube, and the tube is placed in the turbidiscope. With the light turned on, the contents of the tube are observed through the opening in the front of the turbidiscope, and the appearance of the sample is compared with that of a standard sample of sugar solution which is placed in the turbidiscope at the same time. A good clean sample of granulated sugar will show no signs of cloudiness under this test.

The turbidiscope test, and the so-called "candy test" described in the January number of this publication, furnish the candy manufacturer with two simple and reliable checks on the quality of his most important raw material.

Research on Metallic Cooking Utensils at Mellon Institute

Dr. Edward R. Weidlein, director, Mellon Institute of Industrial Research, University of Pittsburgh, has announced the appointment of Dr. Erich W. Schwartze to the senior incumbency of the Institute's Multiple Industrial Fellowship on Cooking Utensils.

This Fellowship has been recently established for the purpose of making a comprehensive chemical and pharmacodynamic study of the effects of the corrosion of metallic cooking utensils during the preparation of foods therein. The investigation will cover the effect upon the animal body of the metal taken up by and ingested with the cooked food as well as the effect of the material of the utensil upon the food constituents, particularly the vitamins, during culinary, food-manufacturing and sterilizing operations. The researches will be conducted along the most approved scientific lines, and the results will be published from time to time as they become available.

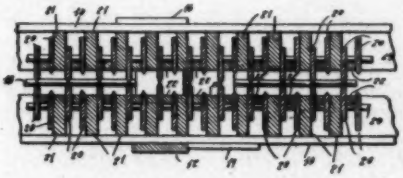
Dr. Schwartze, who is a specialist in food research involving chemistry, physiology, and pharmacology, received his professional training at the University of Illinois (A. B., 1912) and at the University of Chicago (M. D., 1914). During the period 1916-1926 he was associate pharmacologist, in charge of pharmacological investigations, in the Bureau of Chemistry, Department of Agriculture, Washington, D. C., but he spent one year (1923-1924) at the University College, London, England, as a fellow in medicine of the National Research Council. Dr. Schwartze is well known scientifically because of his published contributions to the literature of the chemistry and pharmacology of cottonseed, peanut oil, and of metals, especially tin and cadmium, used in the construction of food containers.

Dr. Schwartze will be assisted by Frank J. Murphy, a Junior Industrial Fellow of the Institute who has been engaged in food and nutritional investigations since the completion of his professional education at the University of Pittsburgh (B. Chem., 1922).

WHAT'S NEW?

New Patents

1,621,956. CANDY MACHINE. Albert F. Schmand, Little Rock, Ark. Filed June 17, 1924. Serial No. 720,603. 4 Claims. (Cl. 107—21.)



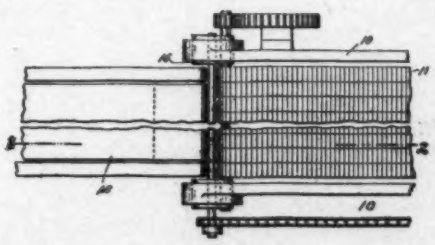
4. A candy machine of the character specified, comprising two members hingedly secured together, each member comprising parallel angle bars having the outer edges of a flange of each bar notched, hinged spacers fitted in the notches of the angle bars, fixed spacers intermediate the hinged spacers, adjustable cutters disposed between the sets of spacers and having vertical slots and lateral notches, and rods passing through openings in the fixed spacers and co-acting with the slots and notches of the cutters to hold the latter in the required adjusted position.

1,611,528. PECTIN PRODUCT AND PROCESS OF PRODUCING SAME. Eloise Jameson, Corona, Calif., assignor to California Fruit Growers Exchange, Los Angeles, Calif., a Corporation of California. Filed Oct. 17, 1925. Serial No. 63,132. 10 Claims. (Cl. 99—11.)

1. A dry pectin product having a pH of 3.4 to 7.0.

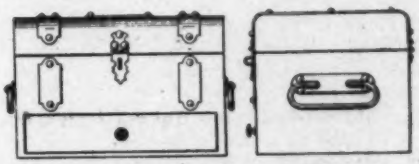
5. An improvement in the process of producing pectin which consists in adding to a pectin preparation which is not of proper pH a salt of a strong base and weak acid in such proportions that the finished product has a pH of 3.4 to 7.0.

1,612,762. DETAILING MECHANISM FOR CANDY COATING MACHINES. John M. Flynn, St. Louis, Mo., assignor to United Drug Company, Boston, Mass., a Corporation. Filed Sept. 2, 1925. Serial No. 54,142. 3 Claims. (Cl. 91—2.)



1. A mechanism for removing the tails from confections comprising in combination a feeding sheet for coated confections, an extremely small rotating gyratory rod arranged close to the end of said sheet and operated at a high speed with a gyral action, and a second feed sheet having an end arranged close to the said small rod, the aforesaid parts being juxtaposed so as to enable the confection to get its entire support from the feeding means as it passes from one to the other.

71,800. CONTAINER FOR CANDY AND OTHER ARTICLES. Mayer Jones and Benjamin E. Goldstein, Brooklyn, N. Y., assignors to Jones Bros. Co., Inc., New York, N. Y., a Corporation of New York. Filed Oct. 12, 1926. Serial No. 19,312. Term of patent 14 years.



The ornamental design for a container for candy and other articles as shown.

1,613,282. CONFECTIONERY CONTAINER. James E. Mayhew, Brooklyn, N. Y. Filed July 6, 1925. Serial No. 41,606. 1 Claim. (Cl. 229—21.)

A container formed of a square sheet of material, said container comprising a bottom and circular walls surrounding said bottom, the walls being composed of a plurality of interlocking sections, said sections comprising a pair of long sides extending tangentially from opposite sides of the bottom, said bottom being circular in outline, a pair of short sides extending tangentially from opposite sides of the bottom at a position 90 degrees removed from the center of the long sides, means for interlocking the short sides with long sides to form a circular wall comprising a pair of slots extending from the outer edges of the short sides, said long sides having a slot at each corner, the slots of the long sides being adapted to enter into the slots of the short sides when trained around the outline of the bottom.

Monthly Digest of Current Technical Literature

of direct or indirect relationship to the confectionery industry

Molding Starch in Blown Chocolate Creams. B. C. Philbrick. J. Bact. Volume 12, page 275-8. A glucose-fermenting bacillus is usually found in "blown" chocolates. This bacillus infects the molding starch and the infection may be carried to all of the chocolates unless it is sterilized or discarded.

Glucose as a Remedy for Hydrocyanic Acid Poisoning. H. Violle. Bull. acad. med. Volume 95, page 664. Rabbits were fed on glucose and were then transferred to an inclosed atmosphere containing hydrocyanic acid gas. The animals developed a phenomena of intense reaction but survived, although the quantity of hydrocyanic gas absorbed was many times the lethal dose. It seems possible that glucose may be used as a prophylactic for hydrocyanic acid poisoning.

Application of the Gerber Method for the Determination of Fat in Cocoa and Chocolate. J. Ruffy. Ann. chim. anal. chim. appl. Volume 8, page 225-7. The method of Gerber which is so useful in determining the fat content of milk, has not been applicable to the analysis of cocoa and chocolate, because of the danger of carbonizing the material by the action of concentrated sulphuric acid. This may be avoided by first extracting the fat with ether. A complete method is given in detail.

Process for the Manufacture of Jellies from Pectinous Fruit Juices. J. C. Bell. Fruit Products J. and American Vinegar Industry, Volume 5, pages 10, 11, 12. Methods are given for the preparation of jells; the time for adding sugar; method of clearing and skimming the juice; making a sheeting test and sterilization of the final product are discussed.

Coffee Flavor. J. L. Kellogg, U. S. Patent 1,605,115. The essential oils are separated from coffee by pressure at a moderate temperature.

Coconut Syrup. B. H. Merck, U. S. Patent 1,605,754. Equal quantities of sugar and glucose to which has been added a small quantity of water, are boiled together. Coconut is now added and the mixture is permitted to stand until the coconut butter is separated. The fat is then removed and the syrup strained.

The Use of Oil of Peppermint in Confectionery, Etc. Elie Maunier. Perfums de France, Volume 4, pages 289-300. (In French and English.) Descriptive with numerous formulas.

Studies on Peppermint Oil, by L. H. A. Braun, Journal of the Am. Pharm. Assoc., Volume 15, page 337-8. The methods of extraction, together with the mechanical and physical constituents are given.

Experiments to Determine the Extent of Drying Out of Sugar Stored at Different Altitudes in the Union (of S. Africa). D. M. Eadie, Proc. S. African Sugar Assn., 4th Ann. Con., page 42-6. Weighed bags of sugar were stored in four places representing different climatic conditions. The bags were periodically reweighed, the moisture was determined in the sugar, and the atmospheric humidity measured. The results are presented in tabular form. About 60% relative humidity the sugars gained in weight and below that point they lost. But the gain or loss was well within 1 per cent, larger deviations being due to extraneous causes. Conclusion: In the ordinary course of trade there would be no danger of unintentional infraction of the weight law.

The Speed of Absorption of Moisture by Granulated Sugar. K. K. Shirko-Park-Homemko. Zapiski (Russian) Volume 3, pages 291-4. Granulated sugars of varying fineness were washed with alcohol and kept in closed vessels for six months. After that they were placed on a water bath to dry at 98 to 99 degrees for 9.5 hours. Polarization showed them to be 100 per cent pure, with no invert sugar. Small dishes containing 9.9946 grains of sugar were placed in a desiccator which contained pure water. All of the containers were disinfected. A capillary glass tube from the desiccator regulated the pressure. At 25 per cent, with a full vapor pressure for this temperature, the absorption of moisture increases with the time. In general the fineness of crystal state determines the speed of absorption. In part the speed increases proportionately to the size of the crystals. A slight decrease noticed in the finest grained sugar under experiment is explained by a slower circulation. Experiments with various vapor pressures show that absorption is proportional to the vapor pressure.

New Methods of Pulverizing Sugar. A. E. Ackers, U. S. Patent 1,605,420. After pulverizing and before packing, sugar is cooled in order to prevent undesirable agglomeration of the particles.

Determination of Milk Fat and Coconut Oil in Cream Bon Bons. Heinrich Fincke. Z. Untersuch. Lebensm. Volume 51. Pages 357-

68. The Kirschner number, for which a modified procedure has been devised, is in combination with a correction factor obtained from the Polenske number, a useful method for determining milk fat, even in mixtures containing coconut oil. It is shown that the process of preparing milk bonbons causes no change in the constituents of the fats contained therein; thus it is possible to determine their composition with sufficient accuracy.

Cocoa By-Products and Their Utilization. G. P. Walton and R. F. Gardiner. U. S. Dept. Agr., Bull. 1413, page 1-44. Analyses are given of representative cocoa press cakes, solvent extracted cocoas and cacao shells. Several of the samples analyzed satisfy the chemical requirements for edible cocoa powder. More than one-third of the total nitrogen of both the pressed cake and solvent extracted cocoa is water-soluble but the insoluble organic nitrogen is of inferior quality. The alkaloid nitrogen is water-soluble and may constitute fifty to sixty per cent of the total water-soluble nitrogen. Cocoa press cake contains less nitrogen and phosphorus pentoxide but twice as much potassium oxide as castor pomace, and is similar to common "cottonseed feed" in crude plant-food content. The sum of the water-soluble nitrogen and active insoluble nitrogen in cocoa press cakes and extracted cocoas, forms a smaller proportion of the total nitrogen than in the cottonseed meal and castor pomace. Ground cocoa cake makes a satisfactory conditioner for mixed fertilizers and it is suggested that the solvent-extracted cocoa may have value as a raw material in the preparation of theobromine. Cacao shells contain less nitrogen and phosphorus pentocide but considerably more potassium oxide than the average by-product cocoa cake. The quality of the nitrogen in the shells is lower than that of the cake and extracted cocoa nitrogen.

Process for Preserving Fruits. W. R. Barger and L. A. Hawkins. U. S. Patent 1,598,697. Decay of citrus or other fruits caused by green mold formed by Penicillium Digitatum Saccharin is prevented by treating the fruit with a solution of borax 2.67 and boric acid 5.33 in water 100 parts.

Tests for Oil of Anise and Oil of Star Anise. Apoth. Ztg. Volume 40, page 1344-5. The Hydrochloric acid test with pure anise oil, star-anise oil, and mixtures of the two does not give trustworthy results and the following is suggested: Five drops of Vanillin solution (0.4 grains of Vanillin in 5 grains of diluted alcohol) are mixed with two or three drops of the oil, and fuming hydrochloric acid is added to make 1 cc. The color is first observed in the cold, then in a water bath at 50 degrees, which is slowly heated to boiling. Freshly distilled anise oil becomes pale red on warming and finally brownish red, which remains on cooling. Star-anise oil on warming gradually becomes pale green, then grass-green, and on boiling, brownish green; on cooling, olive green. With a mixture of anise oil and 10 per cent of star-anise oil a dirty green color is obtained, and with 30 per cent of star-anise oil the color produced by the anise oil is entirely masked.

Synthetic Vanillin. A. P. Sachs. Perfumers' J., Volume 7, pages 8, 12-3, 29-32. Description of foreign and domestic processes for manufacturing Vanillin from oil of cloves.

The Use of Ultra-Violet Light in the Examination of Egg Products, Milk Products, Oils and Fats, Etc. G. Popp. Z. Untersuch Lebensm, Volume 52, pages 65-80. A description of the methods for the analysis of various food products by the use of ultra-violet light.

Report on Eggs and Egg Products. Raymond Hertwig. J. Assoc. Official Agr. Chem. Volume 9, page 348-52. Brief discussion of the work of the Association on this subject during 1926.

Report on Methods for the Determination of Total Solids in Liquid Eggs and Powdered Dried Eggs. J. C. Palmer. J. Assoc. Official Agr. Chem. Volume 9, page 354-7. Average collaborative results showed that the umpire vacuum method (drying to constant weight at 98 degrees at a pressure not exceeding 25 millimeters) and the rapid routine method (drying to apparent dryness on the steam bath, and then for three hours at 112-7 degrees at atmospheric pressure) are in close agreement. There is a considerable range, however, in the results obtained by different collaborators, probably due to the difficulty of keeping the sample for distribution representative.

Report on (the Determination of) Food Preservatives. W. W. Randall, J. Assoc. Official Agr. Chem. Volume 9, page 358-61. The experiments described show that the gravimetric determination of soda benzoate (either by weighing the benzoic acid deposited by sublimation according to Hortvet's method, or by weighing the sublimator dish before and after sublimation) in ketchup is as accurate as the determination by titration; that the titration of benzoic acid should be conducted so that the end point is determined when the solution of the acid is near the boiling point; and that in the determination of benzoic and salicylic acids pure solvents should be used and traces of water or volatile acids must be removed from the material to be sublimed. Inclusion of some of the aquatic liquid with the chloroform during extraction is less likely to cause error when the weight of the sublimed material is determined than when the extracted acid is titrated by the official A. O. A. C. method.

The Valuation of Cacao and Cacao Products. F. Hartel. Z. Untersuch, Lebensm. Volume 52, pages 80-97. A report of the discussion and final action on proposals for changes in the rules of the association of German food chemists for valuation of cacao and cacao products.

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Factors That Control Uniformity of Marshmallow

(*Continued from page* 45)

of the products secured they desire to offer to the public. If it is box "G," records for that batch show these figures, if it is for box "M," records for that batch show those figures, but if "G" is the better product, it is logical that the manufacturer will attempt to duplicate "G" conditions and avoid as much as possible all the other recorded conditions. This can be done much more easily if conditioned air is available than if the factory has not this blessing at their disposal, but it can be done in either case. If no conditioned air is available, a flexible relationship of the factors will have to be determined experimentally as for a single example, when the air in the set-up room is of a certain temperature and humidity, the goods will remain in starch so many hours. When the air shows a higher percentage of relative humidity at the same temperature, the goods will have to remain in starch so much longer in an effort to secure the same marshmallow. This has been done in a number of cases and a chart or tables made from the results of daily tests have been used with considerable success. Perhaps the reader will think that this article lacks details which would make it considerably more helpful. Please remember that few marshmallow manufacturers operate alike, the only similarity is that they all make a confection known as marshmallow.

Summary: The secret of uniform marshmallow manufacturing, with all of its inherent advantages lies in the control of all of the controllable factors. The less the variation in these factors, the less will be the difficulties experienced.

M. C. A. Financial Campaign Closing in on Non-Contributors

The Advertising and Educational Financial Campaign of the candy industry continues to progress satisfactorily. Efforts are being made to secure the pledges of all members of the National Confectioners' Association and the Associated Retail Confectioners' Association that have not already made pledges, before the conventions in Atlantic City and Philadelphia. It is also expected that a large number of the allied trades will register their pledges before the convention dates.

C. S. Clark, the Financial Campaign Director, has recently visited Boston and other New England cities in the interest of the campaign. Mr. Clark was the speaker at the monthly meeting of the Retail Confectioners' Association of Philadelphia, April 6th, and at the meeting of the Baltimore Manufacturing Confectioners' Association on April 13th.